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Alaska State Office
222 West 7th, #13
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Mineral Investigations on Baranof and Chichagof Islands, and Vicinity, Southeast Alaska, 1995

Kenneth M. Maas, Peter E. Bittenbender, and Jan C. Still

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Cover Photo

Dilapidated equipment and structures lie idle at the Lucky Chance millsite, Silver Bay area of Baranof Island in Southeast Alaska. The mine was discovered by 1880 and the mill began operations by 1887, continuing on an intermittent basis until at least 1904. The Lucky Chance Mine produced an unspecified quantity of gold and silver. (Photo by authors.)

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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MINERAL ASSESSMENT REPORT

Mineral Investigations on Baranof and Chichagof Islands, and Vicinity, Southeast Alaska, 1995

Prepared By:

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September 27, 1996	September 27, 1996	September 27, 1996
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Mineral Investigations on Baranof and Chichagof Islands, and Vicinity, Southeast Alaska, 1995

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ABSTRACT

The Baranof and Chichagof Islands area is located along the northwest coast of Southeast Alaska. This area hosts historically significant producers of gold, silver, and gypsum. The Chichagof and Hirst Chichagof Mines, operating in Klag Bay and Kimshin Cove, were the main precious metal producers in the study area. Gypsum was produced by the Pacific Gypsum Company from a single mine operating in Iyoukeen Cove. U. S. Bureau of Mines personnel (who were subsequently incorporated into the Bureau of Land Management) investigated mineral occurrences in the Baranof and Chichagof Islands area during 1995. This study will continue through 1996.

Two crews examined 35 mines and prospects, and several additional sites were sampled in a reconnaissance fashion on Federal, State and private lands. In all, over 400 samples were taken for geochemical analysis, and 3,500 feet of underground workings were surveyed and mapped. Work was concentrated around Silver Bay and along the Hoonah logging-road system. Several sites located along coastal areas were also visited. Detailed work was not performed in the West Chichagof and Klag Bay areas, as extensive studies were recently completed by Bureau personnel. Reference to these reports as well as a comprehensive list of published and unpublished geologic and mineral resource reports are contained in the bibliography. Summary information is provided for 132 properties in the study area. Mineral development potential has been classified as low, medium or high for these properties.

Results from the 1995 work define low-grade gold-bearing quartz veins in the Silver Bay area and the presence of weakly mineralized skarn systems surrounding Gypsum Creek, north of Freshwater Bay. No specific ore bodies were delineated from this work, although high-grade sphalerite mineralization was encountered at East Point, north of Tenakee Inlet.

EXECUTIVE SUMMARY

Baranof and Chichagof Islands are located along the northwest coast of Southeast Alaska. The present study encompassed these islands as well as the smaller islands to the west. Work completed in 1995 was conducted by U.S. Bureau of Mines geologists and engineers. This study is part of an ongoing statewide mineral land assessment authorized under Section 1010 of the Alaska National Interest Lands Conservation Act. Significant quantities of gold, silver, and gypsum have been produced from this area; it was historically the second largest lode-gold producing area in Alaska. The Chichagof and Hirst-Chichagof Mines produced the majority of the gold and silver, and the Pacific Coast Gypsum Company's mine at Iyoukeen Cove produced the gypsum.

Two crews investigated 35 mines and prospects, and several additional sites were sampled in a reconnaissance fashion on Federal, State and private lands. In all, over 400 samples were taken for geochemical analysis, and 3,500 feet of underground workings were surveyed and mapped during 1995. Efforts during 1995 were concentrated in the Silver Bay area and along the Hoonah logging road system as well as in scattered locations throughout the study area. Work was not performed in the West Chichagof and Klag Bay areas as extensive studies have already been completed.

Results from the 1995 work indicate the low-grade nature of gold-bearing quartz veins in the Silver Bay area and the presence of skarn-related mineralization surrounding Gypsum Creek. No specific ore bodies were delineated from this work.

A total of 135 mineral properties are recapped in the summary table presented at the end of this report. These properties are ranked by mineral development potential (MDP) to provide a basis for comparison. Nineteen properties were assigned a medium, medium to high, or high MDP ranking. Seven properties are ranked with a low-medium MDP and the remaining 109 properties have a low MDP.

Thirteen of the properties rated with a medium to high MDP are mines or prospects containing gold and silver; ten are clustered in the Doolth Mountain-Klag Bay area. The Chichagof and Hirst-Chichagof Mines are included in this group. Other gold-silver properties are the Golden Hand Apex, Apex-El Nido, New Chichagof Mining Syndicate, Basoiniuer, Chichagof Prosperity, Alaska Chichagof, McKallick Chichagof Mines (OB Adit), Jumbo, Baney, Falcon Arm, and Cobol. Three porphyry-molybdenite and copper deposits have been assigned a medium to high MDP, and these are located at Slocum Arm, Warm Springs Bay, and Patterson Bay. Two magmatic segregation deposits containing nickel-copper-cobalt were rated similarly and they are located at Bohemia Basin and Mirror Harbor. A third magmatic segregation deposit containing copper-nickel is found at Snipe Bay. Summary information for these 19 locations is given in table 1. Additional information is found in table B-1.

Table 1. Deposits with medium or high mineral development potential.

Map No.[1]	Name	Land status	Deposit type	Production	Resources/Sample results	MDP
10	Bohemia Basin	Private, Federal	Magmatic Segregation: Ni, Cu, Co	None	Measured and inferred: 20 million tons @ 0.31% Ni, 0.18% Cu, 0.04% Co (177)[2]	M-H
16	Apex-El Nido	Federal	Vein: Au, Ag, W	17,000 ounces Au, 2,400 ounces Ag	Indicated: 26,633 tons @ 0.945 oz/t[3] Au (177)	H
41	Mirror Harbor	Federal	Magmatic Segregation: Ni, Cu, Co	test shipment only	Measured: 8,000 tons @ 1.57% Ni, 0.88% Cu; Hypothetical: 900,000 tons @ 0.172% Ni, 0.049% Cu (177)	M
45	New Chichagof Mining Syndicate	Federal	Vein: Au	None	Samples average 0.24 oz/t Au	M-H
47	Golden Hand Apex	Federal	Vein: Au	4 ounce Au	Samples average 0.34 oz/t Au	M-H
54	Hirst Chichagof	Private	Vein: Au, Ag	131,000 ounces Au, 33,000 ounces Ag	Inferred: 80,000 tons @ 1 oz/t Au and 0.25 oz/t Ag; Marginal inferred: 70,000 tons @ 0.25 oz/t Au (304)	H
55	Basoiniuer	Private	Vein: Au	None	Samples contain trace Au, Ag	M
56	Chichagof Prosperity	Federal	Vein: Au	None	Samples contained up to 0.694 oz/t Au	M
60	Baney	Federal	Vein: Au	None	Dump sample contained 2.76 oz/t Au, 0.32% W	M
62	Jumbo	Federal	Vein: Au	1,450 ounces Au	Samples contained up to 0.07 oz/t Au	M
63	Alaska Chichagof	Private, Federal	Vein: Au	660 ounces Au	Samples contained over 1 oz/t Au, 4.5 oz/t Ag	M

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[1]Refers to sites depicted on figure 5 and in appendix table B-1.

[2]Numbers in parentheses refer to bibliographic entries preceding the appendices.

[3]Ounces per short ton.

Map No.	Name	Land status	Deposit type	Production	Resources/Sample results	MDP
64	McKallick Chichagof Mines	Federal	Vein: Au	None	Samples contained up to 0.36 oz/t Au	M
65	Chichagof	Private	Vein: Au, Ag	659,955 ounces Au, 200,000 ounces Ag	Inferred: 80,000 tons @ 0.25 oz/t Au and 0.08 oz/t Ag; Marginal inferred 463,000 tons @ 0.3 oz/t Au (304)	H
80	Falcon Arm	Federal	V: Au	None	Samples contained up to 2.16 oz/t Au	M
81	Cobol prospect	Federal	Vein: Au	100 ounces Au	Samples along 57-foot zone averaged 0.28 oz/t Au	M
85	Slocum Arm	Federal	Porphyry: Mo	None	Samples contained up to 0.54% Mo	M
103	Warm Springs Bay	Federal	Porphyry: Cu, Mo, Zn	None	Samples averaged 600 ppm Cu, 85 ppm Mo	M
128	Patterson Bay	Federal	Porphyry: Cu	None	Samples contained up to 3,100 ppm Cu, 970 ppb Au and 4,820 ppm As	M
129	Snipe Bay	Federal	Magmatic Segregation: Cu, Ni	None	Indicated resources: 94,00 tons @ 0.94% Cu, 0.33% Ni (321)	M

INTRODUCTION

The U.S. Bureau of Mines (Bureau) began a 2-year study of Baranof and Chichagof Islands in 1995, at the request of the U.S.D.A. Forest Service (Forest Service). Bureau work efforts were concentrated on known mineral locations obtained from numerous literature sources, and on newly discovered deposits being explored by the mining industry. Properties were evaluated by a combination of geologic mapping, sampling and site surveying. Overall project objectives are to:

- identify the type, amount and distribution of mineral deposits in the district
- determine mineral resource estimates when possible
- study beneficiation technologies for representative types of ore
- conduct feasibility studies for selected deposit types
- address resource and land-use issues related to mining activities

The study area contains the historic Chichagof District, previously known as the Sitka Mining District (180), an area that has produced significant quantities of gold, silver, and gypsum. In addition, there are occurrences of nickel, chromium, copper, molybdenum, tungsten, iron, potassium feldspar, palygorskite, andalusite and cement-grade limestone. Gold and silver production has come mainly from the Chichagof and Hirst-Chichagof Mines; however smaller amounts have been recovered from the Apex-El Nido, Alaska Chichagof, Cobol, and mines in Silver Bay. Gypsum was recovered from a mine near Iyoukeen Cove. Mineral deposit types include vein-gold, epithermal vein, magmatic oxides and sulfides, replacement gypsum, porphyry copper and/or molybdenum, pegmatite, and copper-iron skarn.

Bureau geologists investigated over 50 mines, prospects, or occurrences in 1995. Over 3,500 feet of underground and surface workings were mapped and over 400 rock chip, placer, and stream sediment samples were taken for geochemical analysis. This report presents an overview of land status, mining history, previous studies, general geology and mineral deposit types, and a bibliography of geological and mining-related reports pertaining to the study area. Other sections depict specific Bureau work and analytical data. A table summarizing pertinent information on mines, prospects, and occurrences in the district is presented as appendix table B-1.

Purpose of Program

Mineral land assessment activities in Alaska expand the database with respect to mineral potential and support Department of the Interior responsibilities to foster policies that improve Federal stewardship and land-use planning on public lands. This information and the resulting policies are necessary to ensure the sound use of natural resources, while preserving and protecting environmental and cultural values. The assessment studies are done in partnership with other Federal, State and nongovernmental organizations. They provide important geoscience, mining engineering and mineral economic information that become part of a comprehensive inventory of resources on Federal land. The total data set will ensure that physical, biological, and economic sciences are considered in Federal land planning and decision making. The mineral assessments address specific data and analysis requirements mandated by the National Environmental Policy Act (NEPA), the Federal Land Management and Policy Act (FLPMA), the National Forest Management Act, the Alaska National Interest Lands Conservation Act (ANILCA) and other statutes.

Area-wide mineral assessments of Alaska are conducted in a coordinated fashion among several Federal agencies. Historically, these have included the Bureau, U.S. Geological Survey (USGS), U.S. Bureau of Land Management (BLM), and Forest Service. Early in 1996, the Bureau was closed as an agency and its functions, personnel, and mandates in Alaska were transferred to the BLM under Secretarial Order 3196, dated January 19, 1996.

Under the mineral assessment program, several mining districts (including Goodnews Bay, Juneau, Valdez Creek, Colville, and Ketchikan), national forests (Chugach), and BLM resource planning areas (Steese-White Mountains, Forty Mile, and Black River) have been investigated. The studies develop an understanding of the mineral development potential of each area by creating an inventory of mineral resources, evaluating the likelihood that more resources may exist, and estimating the technical, environmental, and economic feasibility of mining certain mineral deposits. A review of land-use and environmental issues as they relate to potential mineral development scenarios is also provided. Information gathered from these studies is useful to legislators, land-managing agencies, and mineral industry leaders to make informed decisions affecting future mineral resource activities and their associated socioeconomic effects on the State of Alaska.

Authorities

In accordance with Section 1010 of the ANILCA (PL 96-487; 94 Stat. 2371) the Secretary of the Interior is authorized, "...to the full extent of his authority, assess the oil, gas, and other mineral potential on all public lands in the State of Alaska in order to expand the data base with respect to the mineral potential of such lands. The mineral assessment program may include, but shall not be limited to, ... core and test drilling for geologic information.... To the maximum extent practicable, the Secretary shall consult and exchange information with the State of Alaska regarding the responsibilities of the Secretary under this section and similar programs undertaken by the State." The Wilderness Act, National Environmental Policy Act (NEPA), and Federal Land Policy and Management Act (FLPMA) also require interdisciplinary resource assessments before a major Federal land use decision is made on public lands.

Priorities

Mineral land assessment studies are conducted in cooperation with Federal land-managing agencies and the State of Alaska. Study areas are chosen by using a prioritization process that weighs several factors, including land status, mining history, current prospecting activity, logistics, and conflicting uses. The extent and age of previous studies is also taken into account. Agency direction is heavily weighted in this process. Future studies may be defined according to resource area planning needs.

Location and Access

The study area consists of the land area west of Chatham Strait and south of Icy Strait, and includes Inian, Lemesurier, Yakobi, Chichagof, Baranof, Kruzof and the smaller islands scattered along the Pacific coast (fig. 1). This area is depicted on parts of the 1:250,000-scale USGS quadrangle maps for Mt. Fairweather, Juneau, Sitka, and Port Alexander. Population centers in the district include the City and Borough of Sitka, the city of Hoonah, and the smaller communities of Tenakee Springs, Pelican, Elfin Cove, Baranof, and Port Alexander.

The area is characterized by rugged topography with peaks in excess of 4,800 feet high. The steep terrain inhibits foot access in most cases. Numerous inlets and bays cut through the area providing rock exposure along shorelines that can be accessed by boat. Extensive logging-road networks traverse the northeastern portion of Chichagof Island and can be accessed from Hoonah. These roads are located on Forest Service and Native Corporation land. Logging roads also provide access to the Sitkoh Bay-Basket Bay areas. A short paved-road network surrounds Sitka proper. The Alaska Marine Highway System (ferry) provides service to Sitka, Hoonah, Tenakee, and Pelican. Fixed-wing and helicopter support can be obtained from Sitka. Sitka is the largest population center in the district and offers some supplies and services. Juneau can also be used for logistical support.

Land Status

Land management responsibilities in the study area are divided among the Forest Service, Native regional and village corporations, the State of Alaska, and private entities (fig. 2). Most of the land on Baranof Island and the adjacent islands is administered by the Forest Service and is open to mineral location and development. Several lakes on the east side of Baranof Island, including Baranof, Kasnyku, Carbon, Antipatr, Deer and Betty Lakes, have been withdrawn as potential power sites. This classification does not preclude mineral entry, but there may be specific restrictions placed on mining-related activities due to this classification. The townsite of Port Alexander is an exclusion within the City and Borough of Sitka boundary. A large portion of Baranof Island (314,000 acres) is included within the South Baranof Wilderness created by ANILCA. St. Lazaria National Wildlife Refuge, a small island managed by the Fish and Wildlife Service, is located south of Kruzof Island. Both wilderness parcels are closed to mineral entry. A small parcel of land north of Sitka proper is included within an enacted municipal watershed

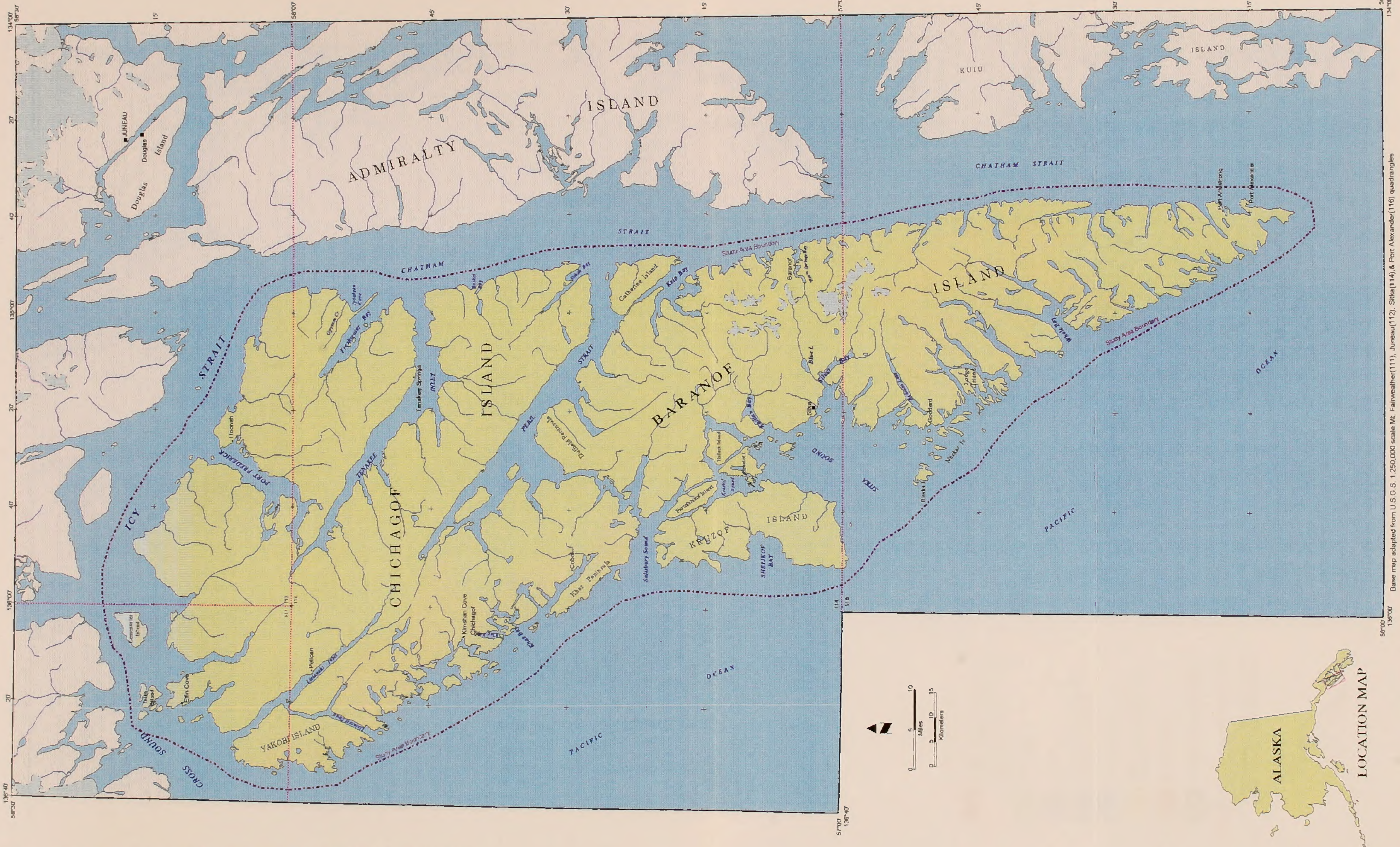

Figure 1. - Location map of the Baranof and Chichagof Islands study area.

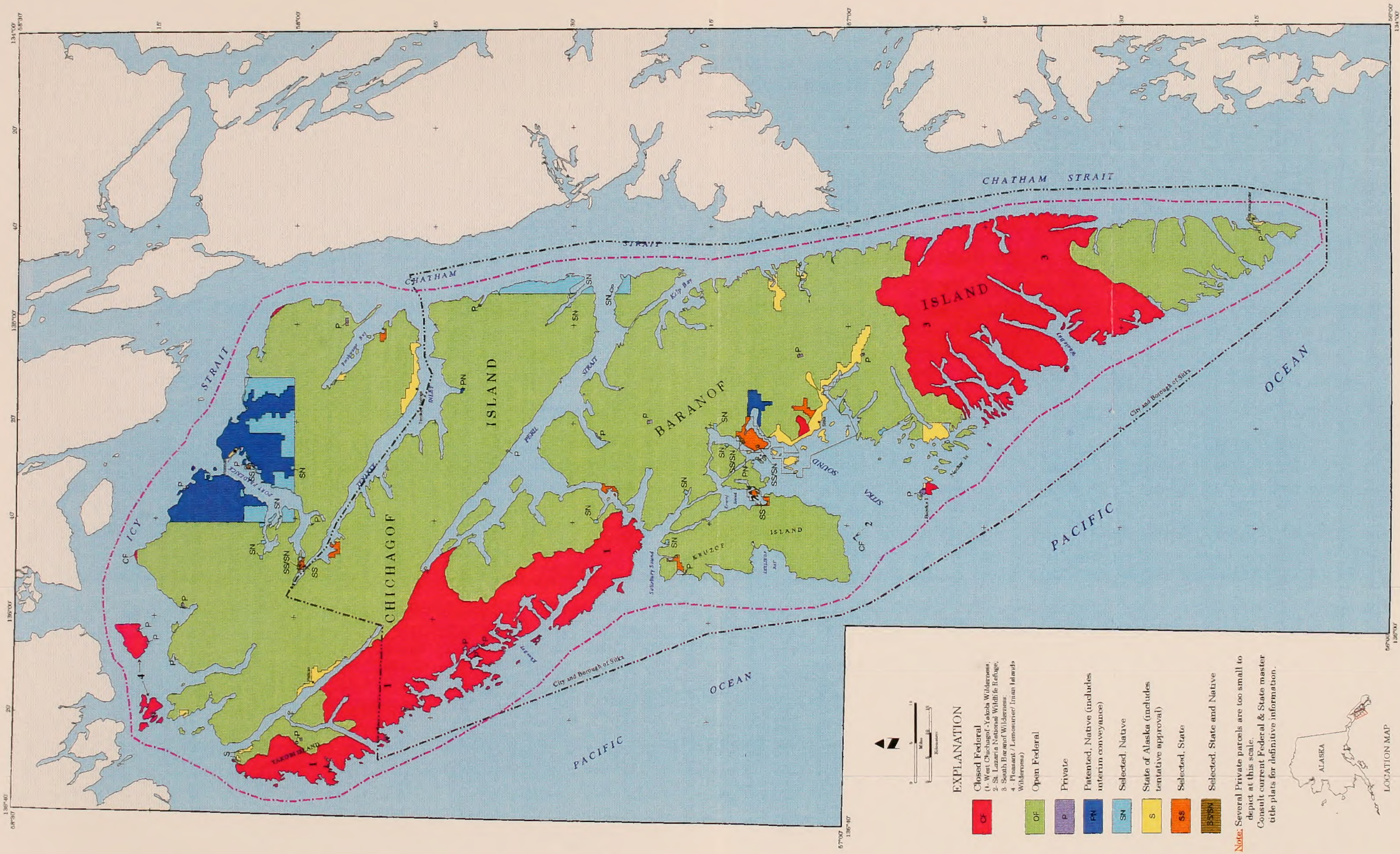

Figure 2. - Generalized land status map.

classification (PL 78-262) that precludes mineral entry.

A large portion of Chichagof Island is managed by the Forest Service and is open to mineral exploration and development. However, significant acreage has been designated as LUD II by the Tongass Land Management Plan and subsequent updates resulting from ANILCA and the Tongass Timber Reform Act. This designation restricts certain activities and provides for the area to be managed in a roadless state for most uses. Roads supporting mineral exploration and development activities in LUD II designated areas may be allowable as specifically authorized uses. The West Chichagof/Yakobi Wilderness occupies over 265,000 acres on West Chichagof and Yakobi Islands, and is closed to mineral location and development. The newly created Pleasant/Inian/Lemesurier Islands Wilderness is also closed to mineral entry.

The Hoonah-Totem Village Corporation owns a large tract of land on northeastern Chichagof Island, centered around Hoonah and adjacent to Port Frederick. Mineral rights on this native corporation land are managed by Sealaska Corporation, the Native regional corporation for Southeast Alaska. Sealaska also has title to several parcels of subsurface estate in the same general vicinity. Several parcels in this area are still in selection status. Shee-Atika Corporation owns land on Alice and Charcoal Islands as well as a small parcel in Katlian Bay. Kootznoowoo Corporation has selected land along Chatham Strait from Little Basket Bay south to Point Thatcher. Most Native corporation lands are available for mineral exploration and development as long as this use does not conflict with traditional, cultural, and subsistence uses. Lease arrangements must be made with the appropriate Native corporations prior to any activity.

State and municipal land is found adjacent to Sitka, Tenakee Springs, Pelican, and Port Alexander. Other small conveyances are scattered throughout the west half of the study area. The City and Borough of Sitka developed a draft comprehensive plan for lands within its jurisdiction in February, 1995. A general provision affecting the mining industry states, "any uses that can potentially degrade the natural habitat will be reviewed and monitored on a case-by-case basis (60)." Users are encouraged to provide information to the Borough very early in the permitting process.

Active mining claims and patented claims are present within the study area. Patented mining claims are present in the following locations: 1) Lemesurier Island, 2) in Bohemia Basin, 3) in Kimsham Cove - Hirst-Chichagof Mine, 4) in Klag Bay - Chichagof Mine, 5) Iyoukeen Cove at Gypsum, 6) at Rodman Bay, 7) in Silver Bay - Stewart Mine, and 8) in Pande Basin. Ownership information for these claims can be obtained from the assessors office in Sitka. Records for unpatented claims are kept by the BLM and are available at the Forest Service offices in Sitka and Juneau.

Private parcels are scattered throughout the study area but most are too small to depict at the scale of figure 2. Consult the Forest Service, BLM or State of Alaska to obtain more precise, up-to-date information on these parcels.

Methodology

Sites are selected for examination after considering information from several different sources. An initial list was compiled from the Minerals Availability System (MAS) database. The MAS database was created and maintained by the Bureau of Mines through 1995 and contains information on mines, prospects, and mineral occurrences throughout Alaska. Each site from the MAS list was reviewed and prioritized after completing a thorough literature search. The literature may reveal that some sites represent claim staking only, consequently locations and information are scarce. These sites were usually eliminated from consideration. Properties with multiple references and evidence of past production or development are given higher priority. Sites where recent work or claim staking has been performed are given moderate priority for field investigation. The literature search may include properties that were not originally included in the MAS database, and merit investigation.

Area studies by governmental agencies such as the USGS or Alaska Division of Geological and Geophysical Surveys (ADGGS) may contain geophysical or geochemical information that warrants follow up examination. Other factors that influence site selection include favorable regional geology and newly created access (e.g. logging roads, glacial retreat, etc.). Sites can be added from input provided by area land managers and geologists.

Acknowledgments

The authors were assisted in locating, mapping, and sampling properties by Joseph Kurtak, a Bureau geologist, normally stationed in Anchorage, Alaska. Jerry Kouzes, a Bureau cartographic technician from Anchorage, Alaska, drafted the figures presented in this report. Both of these individuals are currently employed by the BLM. Thanks is given to the Forest Service for the use of their extensive communications network established in the area. Ron Baer, Forest Service, Sitka, contributed minerals information that was not otherwise available. Excellent accommodations and logistical support was provided by Jake Yearty, skipper of the M/V Ocean Ranger. Coastal Helicopters, Juneau, provided reliable service for work based out of Juneau. Mountain Aviation, Sitka, provided reliable air transport for the work based out of Sitka. Personnel from the Forest Service's Hoonah Ranger Station provided boat and vehicle transportation to road networks outside of the main Hoonah system.

Several individuals provided mineral information and access to their claims. Their assistance and cooperation improved the comprehensive nature of this study. Thanks are extended to Neil McKinnon, Bob Craig, Arne Johnson, and John and Kay Burgess.

Previous Studies

There have been several geologic and mineral resource assessments performed in the Chichagof and Baranof Islands area since the original discoveries of gold-bearing quartz veins along the

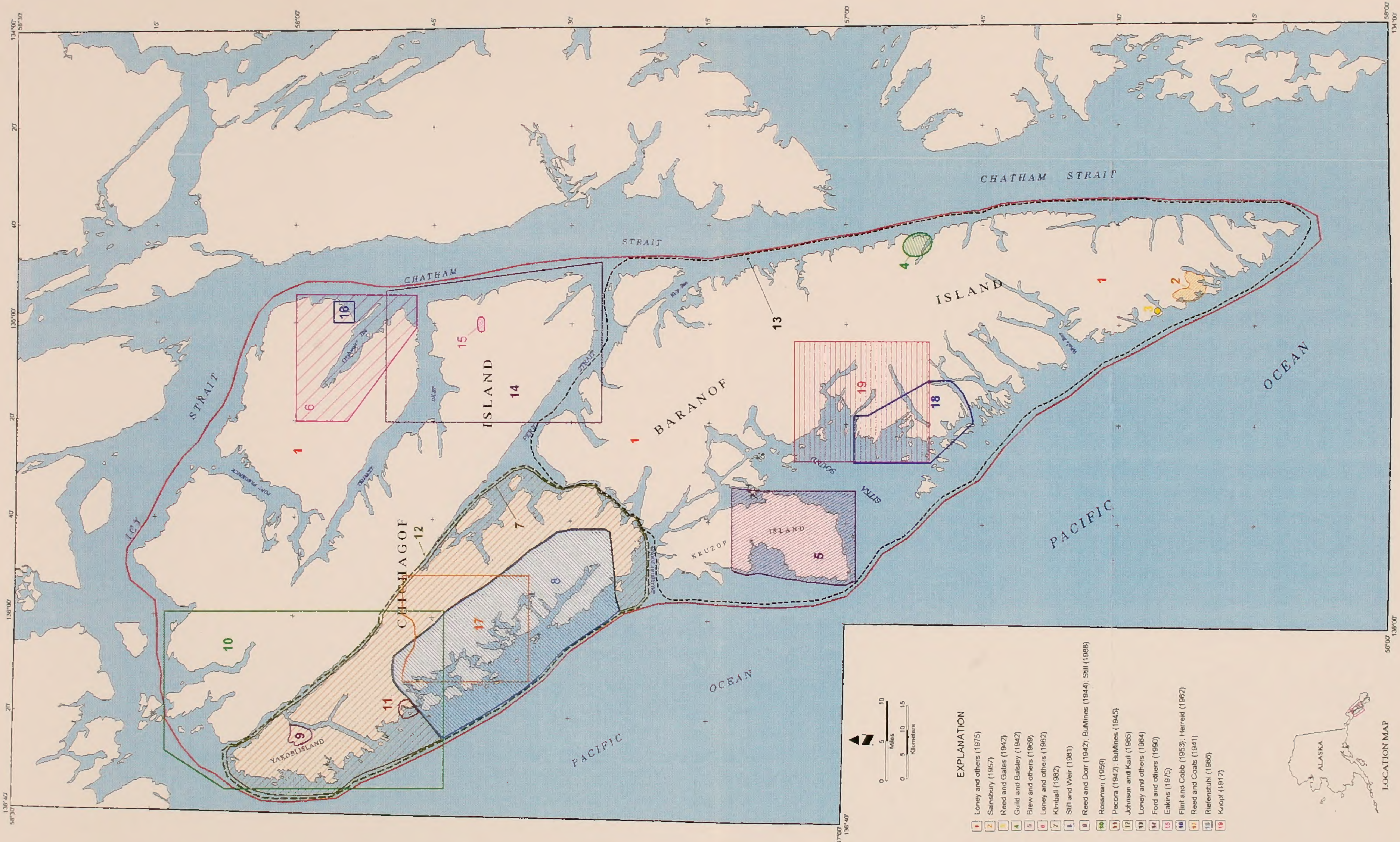

Figure 3. - Location and extent of selected geologic maps and previous study areas.

Indian River near Sitka in 1871 (fig. 3). A complete list of publications is presented in the bibliography at the end of this report. The following is a description of the more significant work completed in the study area.

Wright and Wright prepared the first summaries of mining developments in the Sitka Mining District in 1904 and 1905 (338-339). Several other USGS workers compiled annual summaries of mineral activity in Alaska that contain a review of the Sitka Mining District including: Brooks (34-41, 44, 45), Brooks and Capps (46), Brooks and Martin (47), Buddington (48, 50), Burchard (53, 54), Chapin (55), Knopf (178, 179), Martin (198, 199), Moffit (205), Smith (270-283, 285, 287), and Wright (332, 333, 335, 337).

Several comprehensive studies of the geology, mineral deposits, and geochemistry of the study area have been completed by USGS workers. The first extensive study of the Sitka Mining District was completed by Knopf in 1912 (180). Overbeck produced a compilation of the geology and mineral resources of the west coast of Chichagof Island in 1919 (220). Reed and Coates summarized the geology and ore deposits of the Chichagof Mining District in a report published in 1941 (232). Pecora discussed the nickel-copper deposits on the west coast of Chichagof Island in 1942 (224). Rossman produced a report detailing the geology and ore deposits of Northwestern Chichagof Island in 1959 (262). Loney, Condon, and Dutro produced a geologic map of the Freshwater Bay Area, Chichagof Island, in 1962 (192). Loney, Berg, Pomeroy and Brew compiled a reconnaissance geologic map of Chichagof and Northwestern Baranof Islands in 1963 (188). Berg and Hinckley produced a reconnaissance geologic map of Northern Baranof Island in 1963 (16). Loney, Brew, Muffler, and Pomeroy produced a reconnaissance geologic map of Chichagof, Baranof, and Kruzof islands in 1975 (191). Decker produced a geologic map of western Chichagof Island in 1980 (75). Gehrels and Berg compiled the most recent geologic map of Southeastern Alaska in 1990 (106).

Numerous USGS reports detailing the geology and mineral deposits of the West Chichagof/Yakobi Islands Wilderness Study Area were completed to aid in the ANILCA mandated planning process. Hessin, Speckman, Crenshaw, Hoffman, and Cooley compiled analytical results from several types of samples taken in the West Chichagof/Yakobi Island Wilderness Area in 1980 (128). Johnson and Karl generated a reconnaissance geologic map of the Western Chichagof and Yakobi Islands Wilderness Study Area in 1982 (158). The same two authors completed a final geologic map of this area in 1985 (159). Hessin and others produced a series of geochemical reports in 1982 showing the distribution of individual elements from stream sediment samples, water samples and heavy-mineral concentrate samples taken throughout the wilderness area (118-127). Johnson and Elliott also produced geochemical maps of individual elements from bedrock samples taken throughout the wilderness area in 1984 (147-157). Johnson, Kimball, and Still compiled a report on the mineral resource potential of the wilderness area in 1982 (160).

Several USGS publications provide information on specific mineral properties. These include: Burchard on Iyoukeen Cove gypsum (52); Guild and Balsley on Red Bluff Bay chromite (110);

Kennedy and Walton on Bohemia Basin and Red Bluff Bay (174, 175); Reed and Dorr on nickel in Bohemia Basin (233); Reed and Gates on nickel-copper at Snipe Bay (234); Sainsbury on Redfish Bay (267); Stewart on gypsum at Iyoukeen Cove (294); and Twenhofel, Reed, and Gates on Apex/El Nido, Stag Bay, and Iyoukeen Cove (317).

E. H. Cobb of the USGS completed metallic mineral resource maps for the Juneau, Mt. Fairweather, Port Alexander, and Sitka quadrangles in 1972 (61-64). He also produced summaries of references to these mineral occurrences, by quadrangle, in 1978 (65-68). H. C. Berg completed a report detailing the regional geology, metallogenesis, and mineral resources of Southeastern Alaska, by quadrangle, in 1984 (12). Brew, Drew, Schmidt, Root, and Huber developed a methodology to estimate the undiscovered locatable mineral resources throughout the Tongass National Forest (21). This report discusses several mineral deposits in the current study area.

Several reports pertaining to the mineral deposits in the area have been prepared by Bureau workers. Thorne produced a situation report on the Chichagof Mining District in 1967 (310). Kimball produced a mineral land assessment report of the Yakobi Islands and adjacent parts of Chichagof Island in 1982 (177). Still and Weir completed a mineral land assessment of the west part of Western Chichagof Island in 1981 (304). Still compiled a geochemical report on the distribution of gold, platinum, palladium, and silver in selected portions of Bohemia Basin (303).

Site specific Bureau reports on mines in the area include a report by Humphrey on the Chichagof Mine in 1936 (141); Humphrey on the Hirst/Chichagof in 1936 and 1938 (142, 143); a war minerals report on the Yakobi Island deposits in 1944 (319) and Mirror Harbor in 1945 (320); East, Traver, Sanford and Wright on Yakobi Island Nickel in 1948 (90); Traver on the Mirror Harbor nickel deposits in 1948 (314); Thorne on the Slocum Arm molybdenum deposit in 1952 (309); Jermain and Rutledge on diamond drilling the Gypsum/Camel Prospect in 1952 (145); Thorne on the Lucky Devil Claims in 1960 (308); and Metz on the Chichagof/Hirst Chichagof in 1978 (203).

Geologists and mining engineers from the Alaska Territorial Department of Mines and its successor, the Division of Mines and Minerals, have written several reports on specific mineral properties and mineralized areas in the region between 1918 and 1968. The following table presents these reports by author, property, and reference.

Table 2. Alaska Territorial Dept. of Mines and Div. of Mines and Minerals reports.

Author	Property	Reference
Ballard	Slocum Arm Molybdenite	(331)
Geo-Recon, Inc.	Lucky Devil mining claims	(109)
Gustafson	Camel Gypsum	(111)

Author	Property	Reference
Herreid	Camel Gypsum/Pacific Gypsum	(117)
Holdsworth/ Williams	Red Bluff Bay	(134)
Laney	Alaska Nickel Mines	(184)
McPhar Geophys.	Chichagof area	(202)
Racey	New Chichagof Mining Syndicate	(228)
Roehm	Lucky Strike	(247)
Roehm	AK Gold Digger group	(243)
Roehm	Chichagof Creek group	(244)
Roehm	Goldwin group	(245)
Roehm	New Chichagof Mining Syndicate	(246)
Roehm	Mike Wall prospect	(248)
Roehm	Slocum-Grunter prospect	(249)
Roehm	Green Lake group	(250)
Roehm	Baranof Mining Co. (Halleck Island)	(251)
Roehm	Krestof group	(252)
Roehm	Little Blonde/High Grade group	(253)
Roehm	Bohemia Tunnel	(254)
Roehm	Lucky Chance Mine	(257)
Ryason	Mt. Baker Copper prospect	(265)
Smith	Doolth Peninsula	(288)
Stewart	Mineral Resources - Chichagof Is.	(295)
Vevelstad	Yakobi Island drill logs	(323)
Williams	Ariel property	(330)
Winchell	Alaska Nickel Mines	(331)

Several unpublished reports on mineral locations in the area have been completed and include: an

M. S. thesis completed by Dadoly on wall-rock alteration at the Chichagof and Hirst-Chichagof Mines (73); a Ph.D. thesis completed by J. E. Decker on the Cretaceous subduction complex present on Western Chichagof Island (76); P. A. Decker report on E. B. Sparling's Haywire Group (86); Flemming's account on the Alaska Nickel property (95); Healy on the Alaska Nickel Mines (113); Holmes on the Apex-El Nido Mine (135); Jackson on the Alaska Nickel Mines (144); an M.S. thesis by Jirik on the Takanis Copper-Nickel-Cobalt prospect, Yakobi Island (146); Kazee on the Hirst-Chichagof Mining Co. (172); Moerlein on Mt. Baker Copper prospect (204); Nelson on several Chichagof Island prospects (212), and New Chichagof Mining Syndicate (213); an M. S. thesis by Riefenstuhl on the geology of the Goddard Hot Springs area (235); Ricker on Bohemia-Basin Nickel (238); Rogers on the Alaska Nickel Mines (260); Sanford on the Mirror Harbor nickel deposits (268); Ship and Shipman on the Cobol prospect (269); Storm on the Slim and Jim copper prospect (305); Traver on the Mirror Harbor nickel deposits (313); Wells on ore dressing at the Cobol molybdenum property (326); and Williams on the Cobol deposit (328).

MINING HISTORY/PRODUCTION

The earliest mining activity in the study area took place on the Indian River near Sitka in 1871 (180). No serious efforts ensued here, but additional discoveries were made at the Stewart property in Silver Bay in 1872. By 1879, a 10-stamp mill was erected on the Stewart property (180). A 10-stamp mill was also erected at the Lucky Chance Mine, although exact details of this mine's development are unknown. The gold rush to Juneau in 1880-81 prompted an exodus from the Silver Bay area, and mining activity virtually ceased in the area.

Serious prospecting also took place on Yakobi Island and vicinity. Gold was discovered at the Bon Tara Mine, northwest of Miner Island, near the eastern tip of Yakobi Island, in 1887. About $1,100 worth of gold (55 ounces) was recovered from this property (177). Copper was discovered at Mt. Baker in 1907, and copper-nickel-cobalt deposits were found at Mirror Harbor in 1911 (177). Mirror Harbor was drilled as part of the strategic minerals program initiated during World War II. The Apex and El Nido gold veins were discovered west of Pelican by J. Cann in 1919 and 1920, respectively. These two mines produced over 17,000 ounces of gold and 2,400 ounces of silver during intermittent operation from 1924-1939, the majority coming from the Apex workings (177). Nickel-copper-cobalt mineralization was discovered at Bohemia Basin in 1919, and the first claims were staked in 1920. This area was drilled extensively during World War II, and INCO continued drilling this deposit in the 1950s. Inspiration Development Company completed 29,000 feet of drilling at Bohemia Basin between 1972 and 1979.

Gold was discovered in the Klag Bay area in 1905 (180). This was the principal gold-producing area in the study area. A quartz outcrop found at the Degroff Mine (later to be known as the Chichagof Mine) was so rich that ore was sacked and shipped directly to the Tacoma Smelter in Washington State (304). The Golden Gate Mine was discovered in 1906 along the same fault that hosted mineralization at the Degroff Mine. The Jumbo Mine was discovered in 1909, and 1,450 ounces of gold were produced from a high-grade pocket found near the beach in Klag Bay

(304). This property was operated separately from the Degroff and Golden Gate Mines. A power plant was installed at Sisters Lake in 1909 to provide power for the Degroff and Golden Gate properties at Klag Bay. Operations at these two mines were consolidated in 1912 under the control of the Chichagof Mining Company. The mine operated almost continuously until 1942, and produced over 600,000 tons of ore, extracting nearly 660,000 ounces of gold and 200,000 ounces of silver. Intermittent cleanup operations at the mine and reworking of old tailings continued until 1973 (304).

The Alaska Chichagoff Mine, also located in the Klag Bay area, was discovered in 1928, and incorporated into the Alaska Chichagof Mining Company by 1931. A test shipment was made in 1932. The Chichagoff Mining Company optioned the property in 1936, and their records indicate that 660 ounces of gold had been recovered from the mine (304).

The Hirst-Chichagof Mine was discovered in 1905 at Kimsham Cove, north of Klag Bay. By 1918 the Hirst-Chichagof Mining Company was formed to begin mining operations. The company began mining operations in 1922, and continued until 1943. The mine produced approximately 131,000 ounces of gold and 33,000 ounces of silver from over 140,000 tons of ore (304).

Several other discoveries were made in the following years. The Cobol (Mine Mountain) veins were discovered in 1921. Production between 1933 and 1935 amounted to about $3,500 worth of gold (100-175 ounces at $20/ounce or $35/ounce). The Koby gold prospect was discovered in 1933 by J. Koby. Development work was mostly completed by 1936. No production was reported from this prospect. The Stag Bay copper prospect was located in 1941 (177).

The gypsum property of the Pacific Coast Gypsum Company was discovered at Iyoukeen Cove prior to 1905, and active mining commenced in 1906. Mining continued intermittently until 1923, when the deposit was exhausted. Nearly 500,000 tons of gypsum were removed from this deposit (294). A summary of mine production in the study area is presented in table 3.

Several companies have recently explored selected deposits in the district. Deposits receiving attention include the Chichagof, Hirst-Chichagof, Apex-El Nido, Warm Springs Bay and Silver Bay area (Stewart, Lucky Chance, etc.).

Table 3. - Summary of mine production.

Mine	Activity Years	Gold, ounce	Silver, ounce	Gypsum, tons
Bon Tara	1887	55		
Apex/El Nido	1924-28, 1934-35, 1937-39	17,000	2,400	
Jumbo	1909	1,450		

Mine	Activity Years	Gold, ounce	Silver, ounce	Gypsum, tons
Chichagof	1912-1942	659,955	200,000	
Hirst-Chichagof	1922-1943	131,000	33,000	
Cobol	1933-35	100-175		
Alaska Chichagof	1936	660		
Iyoukeen Cove	1906-23			500,000

GENERAL GEOLOGY

Several USGS workers have made contributions to the geologic database available for the study area. The reconnaissance geologic map compiled by Loney and others (191) is the most complete geologic study of the area to date. Tectonostratigraphic compilations have been completed for Southeast Alaska and include the work of Berg and others (17), Monger and Berg (206), and Gehrels and Berg (104). Many other investigators have contributed to the geologic knowledge of the study area. Some have already been noted in the previous studies section of this report; others are included in the bibliography.

The study area is underlain by rocks belonging to 3 separate tectonostratigraphic terranes (17). From west to east these terranes are 1) Chugach terrane, 2) Wrangellia, and 3) Alexander terrane. The most productive mineral deposits are hosted in the Sitka Graywacke member of the Chugach terrane. These deposits include the fault-controlled Chichagof and Hirst-Chichagof gold mines.

The Chugach terrane extends from Baranof Island around the Gulf of Alaska to Kodiak Island (206, 226). Within Southeast Alaska, the Chugach terrane is wholly included within the study area. It lies outboard of the Wrangellia and Alexander terranes and makes up most of Baranof Island and the west side of Chichagof Island. The terrane is separated from the Wrangellia and Alexander terranes to the northeast by the west-vergent Border Ranges thrust fault and right-lateral, strike-slip Peril Strait faults, respectively. The regional, strike-slip Chatham Strait Fault separates the Chugach terrane from the Admiralty subterrane of the Alexander terrane to the east.

Chugach terrane rocks in the study area are made up of marine sedimentary and volcanic rocks that have been interpreted as a deformed flysch and melange sequence that forms a continental margin subduction complex (83, 225, 226). Dominant units are the Triassic-Jurassic Kelp Bay Group that forms the melange and the Jurassic-Cretaceous Sitka Graywacke flysch sequence. The Kelp Bay Group west of the Border Ranges Fault includes the Pinnacle Peak Phyllite, the Waterfall Greenstone, and metavolcanic and metasedimentary rocks of the Khaz formation (166, 191). The unit has been incised by the Tertiary high-angle Fairweather fault system, that includes several northwest-trending fault splays that includes the Peril Strait fault. These faults have been instrumental in the localization of gold-bearing quartz veins in the Klag Bay area (?).

The Wrangellia terrane extends along the northwest margin of North America from Vancouver Island to south-central Alaska (162, 163). Within the study area, Wrangellia is located on southwest Chichagof Island and northwest Baranof Island. It is separated from the Alexander terrane on the northeast by the Peril Strait Fault (47). The Border Ranges fault separates Wrangellia from the Chugach terrane to the west and south (57).

The oldest Wrangellian rocks found in the study area are late Paleozoic in age (17). These rocks consist of a sequence of marine sedimentary and volcanic rocks. They are overlain by the Triassic Goondip Greenstone and the Whitestripe Marble (191). These two units have been correlated with the Nickolai Greenstone and Late Triassic Chitistone Limestone of the Wrangellia terrane in the Wrangell Mountains (225). Minor Jurassic sedimentary rocks are also included in the Wrangellia terrane as well as a Jurassic tonalite (17, 191). The late Paleozoic Wrangellian depositional environment has been interpreted as an oceanic volcanic arc followed by a rift setting in the Triassic (104).

The Alexander terrane hosts the oldest rocks in the study area. The terrane is exposed throughout southeast Alaska and extends northward into southern Alaska (162, 206). The terrane has been divided into three subterranes, of which the Craig subterrane is found within the study area (17). It is located northeast of Peril Strait and Lisianski Inlet on the northeast side of Chichagof Island. Within the study area, the Alexander terrane is separated on the southwest from the Wrangellia and Chugach terranes by the Peril Strait Fault and the Border Ranges Fault. East of Chichagof Island, the Chatham Strait fault separates the Craig and Admiralty subterranes of the Alexander terrane (17, 206).

The Alexander terrane consists of Paleozoic sedimentary, intrusive, and volcanic rocks. Intrusive rocks of the terrane include the Silurian or older Sitkoh Bay alkalic suite (100). Bedded units include clastic sedimentary rocks of the Silurian Point Augusta Formation, the Silurian-Devonian Kennel Creek Limestone, the clastic and overlying limestone members of the Middle and Upper Devonian Cedar Cove Formation, the Upper Devonian Freshwater Bay andesitic and basaltic volcanics, and the Mississippian Iyoukeen Formation limestones (191). Alexander terrane rocks have been interpreted as evolving in an oceanic volcanic arc environment followed by a more stable, shallow marine setting (107).

Brew and Morrell (41) have distinguished several plutonic belts in southeast Alaska, of which two occur in the Chichagof-Baranof study area: the "Fairweather-Baranof" belt and the "Muir-Chichagof" belt. The Fairweather-Baranof belt includes early to mid-Tertiary granodiorites, tonalites, trondhjemites, and gabbros on Baranof Island and on the west side of Chichagof Island. The Tertiary gabbroic rocks at the head of Tenakee Inlet are also included in this belt. Several outcrops of Mesozoic ultramafic rocks, particularly those at Red Bluff Bay and between Red Bluff Bay and Silver Bay have been prospected for related mineralization and are included in this belt (41, 191).

Brew and Morrell's Muir-Chichagof belt includes the Cretaceous granodiorites, tonalites, diorites and gabbros that crop out in an area from southwest of Peril Strait and Lisianski Inlet to northwest of the head of Tenakee Inlet. Scattered outcrops of granodiorite, quartz monzonite and diorite northeast of this area are also included in the Muir-Chichagof belt (41, 191). The Sitkoh Bay alkalic suite (100) mentioned earlier, defines a third belt on northeast Chichagof Island, but it was intruded prior to amalgamation and accretion of the hosting Alexander terrane.

The Quaternary volcanic field containing basalts, andesites, and dacites found at Mount Edgecumbe on Kruzof Island represents the youngest lithified rocks in the study area (33). Volcanic activity likely ceased with explosive eruptions dated at about 5,000 years before present (240).

Quaternary surficial sedimentary deposits are found along most drainages. These include glacial, glaciofluvial, alluvial and colluvial deposits.

The structural grain of the Chichagof-Baranof study area is generally oriented northwest-southeast. This includes terranes and terrane boundaries, regional fault patterns, outcrop patterns of both bedded and intrusive rocks, bedding, and metamorphic foliation. On a larger scale, the structural patterns of the area are complex and include areas disrupted by multiple episodes of folding and faulting. Intense folding ended by early Tertiary, but movement on faults in the area continues to the present (191).

Metamorphic belts have been defined across southeast Alaska by Brew and others (22). The metamorphism in the Chichagof-Baranof study area is generally related to accretionary tectonic events as well as to local intrusive activity.

MINERAL DEPOSIT TYPES

Mineral deposit types present in the study area include: 1) fault-controlled quartz-vein gold deposits, 2) chromite deposits hosted by ultramafic rocks, 3) magmatic nickel-copper sulfide deposits hosted in gabbro-norite, 4) gypsum deposits in limestone and chert, 5) rare-earth element deposits in silica-depleted intrusives near Sitkoh Bay and Tenakee Springs, and 6) porphyry copper-molybdenum in granodiorite at Warm Springs Bay.

The quartz-vein gold deposits are primarily located on northwestern Chichagof Island and in Silver Bay, near Sitka. These deposits are found in fault zones that cut Mesozoic low-grade metamorphic rocks (generally Sitka Graywacke) and Tertiary granitoid intrusive rocks (191). The gold occurs with pyrite, arsenopyrite, chalcopyrite and rare galena and sphalerite. Metallic minerals rarely comprise more than 3% of the quartz veins (191). Mineralized quartz veins are spatially associated with a belt of Tertiary intrusives that trend west-northwest along the west side of Baranof and Chichagof Islands. $^{40}Ar/^{39}Ar$ data suggest that ore fluid formation and calc-alkaline plutonism are products of a single, short-lived Eocene thermal event (306). Gold mineralization is discontinuous along this belt of intrusives. Deposits are clustered along portions of the Neva Strait Fault (191) and Border Ranges Fault (306) that have been pervasively fractured by an irregular network of faults.

Chromium deposits are found at Red Bluff Bay and at the Hill prospect. Chromite is present as small lenses, thin layers and disseminated grains in serpentinized dunite at Red Bluff Bay. Chromite is a normal accessory mineral of dunite, and in this occurrence contains a low chromium to iron ratio that is an undesirable feature in chromite ores (110). Smaller quantities of chromite are found in thin serpentinized sills of ultramafic rock at the Hill prospect.

Magmatic nickel-copper-cobalt deposits are found in Bohemia Basin, Mirror Harbor, Snipe Bay and near East Point on Tenakee Inlet (Big Ledge deposit). The deposits at Bohemia Basin and Mirror Harbor are hosted in Tertiary norite and locally contain pyrrhotite, pentlandite, and chalcopyrite (191). The Snipe Bay and East Point deposits are smaller occurrences hosted in altered gabbro dikes and contain pyrrhotite, chalcopyrite, and pentlandite.

The gypsum deposits at Iyoukeen Cove are unique in Southeast Alaska. The deposits are hosted in the Mississippian Iyoukeen Formation and are spatially related to limestone, limestone breccia and gypsiferous clay beds. It is unclear whether the deposits are sedimentary or hydrothermal in origin. The origin of the limestone breccia is an important factor in understanding the genesis of the gypsum (96). If the breccia is related to hydrofracturing, then the gypsum may have been introduced with hydrothermal fluids along fault fractures. Most workers assume the deposits are sedimentary in nature and comformably overlie the breccia unit.

Rare-earth-element and uranium mineralization has been identified in small quantities in the Silurian intrusive suite found near Sitkoh Bay (Kook Lake) (89). Anomalous radioactivity was also discovered in sediment samples taken near Deep Bay (177). The mineralization at Kook Lake is most likely magmatic in origin, but not well defined at this time.

Porphyry-style copper-molybdenum mineralization has been identified at Warm Springs Bay on east-central Baranof Island. A Tertiary hornblende-biotite granodiorite pluton (106) situated on the northeast shoreline of Warm Springs Bay contains chalcopyrite, molybdenite, sphalerite, and pyrite mineralization that is localized in quartz veins and disseminated in siliceous parts of the pluton. There are similarly aged plutons elsewhere in the study area, but sulfide mineralization has yet to be identified in them. Limited quantities of molybdenite, chalcopyrite, and malachite have been found in quartz veins and dikes along the shores of Tenakee Inlet and in the Magoun Islands. These occurrences may be related to larger, undiscovered porphyry systems.

BUREAU WORK

Bureau personnel made three field study trips in 1995. Twelve days were spent circumnavigating Baranof Island aboard the M/V Ocean Ranger. Selected prospects and occurrences were examined at Deep Bay, Krestof Island, Magoun Island, Halleck Island, Siginaka Island, Silver Bay, Goddard Hot Springs area, Port Conclusion, Port Armstrong, Port Lucy, Patterson Bay, Red Bluff Bay, Warm Springs Bay, Kelp Bay, and Tenakee Inlet. Seven days were spent examining outcrops and rock pits along the Hoonah logging-road system, mainly using all-terrain vehicles. Known mineral occurrences were examined near East Point, north of Tenakee Inlet, and reconnaissance sampling was conducted between Whitestone Harbor and Tenakee Inlet, as well as the Eight-Fathom Bight road system. Bureau geologists and engineers used helicopter support from Sitka over a 10-day period to examine mines, prospects, and occurrences located from Goulding Harbor, east to Rodman Bay, and south to Redfish Bay. A substantial amount of work was performed in Silver Bay, south of Sitka. No effort was made to reevaluate properties in the West Chichagof Wilderness Area or Yakobi Island as comprehensive examinations have already been published by Kimball, Still and Weir for these areas (177, 304). Interested persons may refer to these publications for information. More than 400 samples were taken and 3,500 feet of underground workings were mapped during these examinations. The following summaries recap the 'significant' portions of this work.

Hoonah Road System

An extensive logging-road system is present on eastern Chichagof Island, north of Peril Strait. The Bureau evaluated portions of this system north of Tenakee Inlet and east of Port Frederick over a seven-day period during the summer of 1995. Known mineral deposits in this area include the Iyoukeen Cove Gypsum Mine, the Big Ledge nickel-copper prospect, and a sphalerite occurrence near East Point. Underground workings at the gypsum mine are either flooded or caved, so no evaluation was attempted. Several workers have previously reported on this property (96, 111, 117, 145). Minor sulfide mineralization related to a skarn was discovered in two pits and several road cuts north of Gypsum Creek during this study. These mineralized areas were examined by Bureau geologists as were several rock pits and exposures along the logging roads of Freshwater Bay, Tenakee Inlet, Whitestone Harbor, and Eight-Fathom Bight.

The general geology of eastern Chichagof Island is characterized by a sequence of Silurian graywacke, argillite, limestone, and conglomerate. These rocks are part of the Point Augusta Formation. Other rock formations present include the Devonian Kennel Creek Formation (mainly carbonates) and Freshwater Bay volcanics, the Mississippian Iyoukeen Formation (limestone, siltstone, and shale), and a few Cretaceous siliceous intrusives (191). The following summaries provide information and analytical results from the significant mineralization examined by Bureau workers.

Gypsum Creek (map Nos. 21-30)

Bureau geologists examined rock exposures along a logging road on the north side of Gypsum Creek. The road passes two rock pits and several exposures of skarn mineralization on both sides of the contact between fossiliferous cherty limestone and a diorite intrusive. The easternmost pit is the larger of the two pits and exposes a zone of sheared hornfels and endoskarn up to 60 feet wide. This zone locally contains abundant pyrite, pyrrhotite and chalcopyrite. Garnet, epidote, diopside, and calcite are discernable in the endoskarn. The mineralized skarn is not present throughout the altered zone, and may represent replaced pods of limestone in the intrusive. A sample of massive pyrrhotite with stringers of chalcopyrite contained 116 ppm copper and 310 ppm nickel (map No. 21, sample 2076). No precious metal values were found in this sample. Massive pyrite seams up to 0.5 inches thick are found in the limestone, and fossil casts are locally imprinted into the pyrite.

The west pit is located about 2.5 miles to the west and exposes similar, but less extensive skarn mineralization. A two-foot-wide zone of gossanous, mineralized hornfels containing chalcopyrite and pyrrhotite was sampled (map No. 28, sample 2080). This sample contained 2,210 ppm copper. Two samples taken from rubble in this pit (map No. 29, samples 2139-2140) contained up to 1,950 ppm copper, 28 ppm molybdenum, 300 ppm cobalt, 0.4 ppm silver, and 50 ppb gold. Although the metal values in this skarn are low, the presence of this type of mineralization is noteworthy.

East Point (map No. 50)

A rock pit located on the south side of the road above East Point (north of Tenakee Inlet) was examined during this study. The pit contained float boulders with massive sphalerite and associated galena and chalcopyrite. Limestone is the dominant rock type in the pit, although a mafic dike trending 015° and dipping 60° northwest cuts through the pit. Several boulders found adjacent to the dike (although not in outcrop) suggest dike-related mineralizing fluids contributed to sulfide mineralization. In addition, a few of the sulfide-rich boulders contain pieces of dike material. Other dikes found in the pit contain pyrite and/or pyrrhotite, but no other sulfides were found. The sphalerite is reddish-black and yellow in color and occurs as large clots up to 3 inches across, and as wisps, tubes, and disseminations. It appears to have selectively replaced portions of the limestone, and does not appear to be structurally controlled. Galena and chalcopyrite are found in lower concentrations within the sphalerite. Much of the limestone outcrop near the dikes contains ankerite and siderite, but no sulfides were found. High-grade samples contained up to 52.0 ppm silver, 26.4% zinc, 1.74% lead, and 460 ppm copper (map No. 50, samples 2048, 2119). The presence of galena may facilitate geophysical exploration to find extensions of this mineralization along strike under the forest cover.

Big Ledge (map No. 52)

Bureau geologists examined the Big Ledge prospect, located in a gully about 0.25 miles uphill from the end of the Forest Service 8513 road (west of East Point). This nickel-copper-cobalt occurrence is hosted in a highly fractured, plagioclase-rich mafic dike that intrudes a volcanic conglomerate. The dike is wedge like in outcrop pattern, up to 40 feet wide, and is emplaced adjacent to a steeply-dipping, north-south-trending fault. The dike is heavily iron-stained and very incompetent next to the fault; these characteristics diminish away from the fault. Movement along the fault probably continued after emplacement of the dike. The dike is exposed in outcrop along the creek. A sloughed trench and two abandoned drill pads were found above the creek. Mineralization is confined to the dike, and consists of clots and disseminations of chalcopyrite, malachite, pentlandite, and pyrrhotite. Samples were taken across the dike in three locations and a high-grade sample was also taken (map No. 52). The weighted average of copper and nickel contained in samples taken across the widest portion of the dike was 0.91% copper and 0.84% nickel. A high-grade sample taken from a sulfide-rich portion of the dike contained 7.02% copper, 4.4% nickel and 910 ppm cobalt (sample 2121).

Reconnaissance (map Nos. 1-20, 31-49)

Additional exploration was conducted during this study on the Eight-Fathom Bight road system, on several logging roads south of Freshwater Bay near Pavlov River and Kennel Creek, and on Spasski, Suntaheen, and Iyouktug Creeks. Ridgetops north of Tenakee Inlet and Freshwater Bay were also examined. Iron-stained areas were examined and most were found to be devoid of sulfide minerals. Sample analyses were generally not encouraging.

A sample of banded hornfels taken from a pit along the Eight-Fathom Bight road contained 433 ppm copper, 934 ppm arsenic, 0.6 ppm silver and 55 ppb gold (map No.6, sample 2070). There were no other significant results from the 14 samples taken along Eight-Fathom Bight Road.

A mineralized site on the ridgetop north of Tenakee Inlet was examined and sampled (map No. 49, samples 2168-2170). A trench approximately 25 feet long by 15 feet wide exposes chalcopyrite and pyrite mineralization related to a skarn. Accessory minerals include magnetite, garnet, epidote, quartz, and calcite. Select samples contained up to 2,900 ppm copper, 10 ppm molybdenum, 240 ppm tungsten, 2.0 ppm silver, and 15 ppb gold.

Skarn mineralization was also examined south of Iyouktug Creek. A contact between the Kennel Creek Limestone and a small diorite intrusive hosts this mineral occurrence. Samples taken from the area contained up to 295 ppm copper, 108 ppm zinc, and 27 ppm molybdenum (map No. 17, sample 2145).

Hill Point (map Nos. 53-55)

Outcrops along the north shore of Tenakee Inlet from Hill Point to East Point were examined and sampled. A molybdenite occurrence was identified here by previous workers (188) and Bureau examination confirmed this. A thin iron-stained selvage zone along the margin of a 1.5-foot-thick monzonite dike contained blebs and clots of molybdenite and chalcopyrite. A select sample contained 280 ppm copper and 237 ppm molybdenum (map No. 53, sample 2742). This zone of mineralization was limited to a short distance along strike of the dike.

Tenakee (map No. 56)

A prospector reported a mercury discovery at the east end of the town of Tenakee near Grave Island. A prominent bluff composed of granite with pinkish red feldspar and partly covered with yellow lichen is found here. This pink granite (alaskite) is strongly weathered, and has decomposed into a reddish-tinged sand. Samples taken by Bureau geologists from the granite and the sand contained from 90 to 210 ppb mercury (map No. 56, samples 2566-67, 2741). The average background of mercury in granite is 80 ppb.

Slocum Arm Molybdenum (map Nos. 69-74)

The Slocum Arm Molybdenum prospect is located 1.5 miles east of Hidden Cove. The prospect consists of Triassic greenstone intruded by Tertiary granodiorite (191). This prospect was examined in 1978 by Bureau engineers (304).

Molybdenum mineralization is found scattered in quartz stringers and in felsic to intermediate dikes along a 020° striking, 55° southeast- to northwest-dipping fault zone that is up to 50 feet thick. The fault can be traced for 8,500 feet from elevations of 500 to 2,400 feet. A series of north-northwesterly-striking felsic to intermediate dikes and sills are hosted in greenstone about 1,000 feet east of the fault zone. West-striking, steeply dipping quartz veins up to 0.5 feet thick are hosted in the greenstone.

The 1978 examination of the Slocum Arm Molybdenum prospect revealed molybdenum mineralization in quartz veins, a shear zone with quartz stringers, in fault gouge, in an assortment of dikes, in greenstone, and in a Tertiary granodiorite intrusive, across an area greater than a square mile (304). The following analytical data, taken from the 1978 study illustrates the grade of the molybdenum mineralization. Samples from the dikes contained up to 190 ppm molybdenum; samples from a diorite sill contained 280 ppm molybdenum; samples from the greenstone contained up to 32 ppm molybdenum; and samples from the quartz veins contained up to 5,400 ppm molybdenum. The quartz sample contained the highest molybdenum value found on the property.

Bureau workers attempted to define additional molybdenum mineralization to the north and east of the main prospect during this study. A 0.7-mile traverse was made along a prominent ridge to the east. Samples were collected of granodiorite, greenstone, and quartz veins hosted in greenstone and granodiorite (map Nos. 69-74). These contained up to 6 ppm molybdenum. A traverse was also made 1,500 feet to the north of the known mineralization. Examination revealed quartz stringers hosted in greenstone and intermediate dikes and sills in greenstone. A sample of quartz in greenstone contained 5 ppm molybdenum and 570 ppm copper (map No. 70, sample 2772). Analysis of dike samples did not reveal significant metal values. Although similar geology was identified north and east of the Slocum Arm Molybdenum deposit, sampling failed to reveal additional molybdenum mineralization.

Deep Bay (map Nos. 75-78)

Gold was found in stream sediment and bedrock samples on the north side of Deep Bay during a 1979 examination of the area (177). Stream sediment samples contained 12.0 ppm and 0.1 ppm gold and a 30-foot-long chip sample contained a trace of gold.

The same area was reexamined during this study and several pan concentrate, stream sediment, and rock samples were taken. A pan concentrate sample contained 125 ppb gold (map no.76, sample 2701), but all the other samples were devoid of gold. The current work suggests that the original anomaly may have been the result of a 'nugget' effect.

Rodman Bay (map No. 83)

Claims at Rodman Bay were originally staked in 1898. During the next six years considerable development work was accomplished on the property including an 800-foot adit, 7-mile-long rail line between tidewater and the workings, and a 120-stamp mill (338). All activity at the site ceased by 1904 (333). Patricia Roppel details the history of the Rodman Bay activity in "The Gold of Rodman Bay" (261). Her account describes the discovery, participants, financial and corporate dealings, and the establishment of a small mining town, complete with post office and general merchandise store. Despite the degree of development, no more than 100 tons of ore were run through the Rodman Bay mill (261). No gold production was ever reported. A total of 12 claims were patented at Rodman Bay. Nine claims were patented at the mine site in 1902 (Mineral Survey 554), and are owned by the State of Alaska. Three claims were patented at tidewater in 1903 (MS 555) and are currently owned by the University of Alaska.

Bureau geologists surveyed, mapped, and sampled the open adit at Rodman Bay during the current study. This adit is 760 feet long and contains a 30-foot-long drift. The adit was constructed with spacious dimensions (10 feet high and 12 feet wide) to accommodate ore haulage, although ore was never processed on a large scale at this prospect. The adit was driven in black phyllite that contains an average of 5-10% quartz veining, with local concentrations approaching 25% quartz. Strike of the phyllite is generally 0° to 340° with dips ranging from 48° to 70° southwest. Local variation is evident, but is not related to the concentration of quartz veining. The drift was driven along a chlorite schist/phyllite contact, but no significant mineralization was found there. The chlorite schist unit is intercalated with the phyllite for about 95 feet past the drift. Six representative samples were taken in the adit (map No. 83, samples 2204-2209) and the highest gold value was 45 ppb gold (sample 2204). No silver was detected in these samples.

Kelp Bay (map Nos. 84-94)

USGS workers identified sulfide mineralization at several locations in Kelp Bay (188, 191). Several of these locations were examined by Bureau geologists during this study. A claim was reportedly staked for gold near the head of Echo Cove on the east side of Kelp Bay in 1969.

Bedrock in the area consists of Kelp Bay Group graywacke and greenschist (191). Quartz veins from 0.2 feet to 3 feet thick were examined. The veins generally trend 280°, but locally are randomly oriented. The veins contain chlorite schist partings and up to 2% pyrrhotite and a trace of chalcopyrite. A select sample (map No. 87, sample 2564) of a pyrrhotite-chalcopyrite zone in a quartz vein contained 4,060 ppm copper. The other veins contained up to 365 ppm copper (map no. 89, samples 2561-2563, 2537).

In a 1963 report, Loney reported pyrite, chalcopyrite and covellite in quartz veins on either side of Portage Arm (188). Examination of the east side of Portage Arm revealed scattered quartz veins hosted in Kelp Bay graywacke and greenstone. Most are concordant (300°/vertical) to the surrounding bedrock, and contain up to 2% pyrite and pyrrhotite, and a trace of chalcopyrite. One barren vein was over 16 feet thick (map No. 85, samples 2565, 2739). Quartz rubble found along the edge of the tidal zone near the head of Portage Arm was stained with limonite and malachite. It contained blebs of sulfides with up to 1% chalcopyrite. A sample from the rubble contained 1,810 ppm copper (map No. 89, sample 2740).

Other samples of quartz veins found in the Middle and South Arms of Kelp Bay, and Pond Island contained low metal values. A sample from altered volcanic rocks in South Arm contained 585 ppm copper and 310 ppm zinc (map No. 94, sample 2113).

Sealion Cove (map Nos. 96-97)

Sealion Cove is located on the northwest end of Kruzof Island. Loney reported the occurrence of sulfide-bearing quartz veins in pegmatite dikes in a hornfelsed aureole surrounding the Sitka Graywacke (188). These veins contain chalcopyrite and molybdenite.

Examination during this study revealed Sitka Graywacke in contact with hornblende-biotite granodiorite at this location. Quartz-feldspar pegmatite mineralization was found near the contact. Narrow quartz veins and stringers cut the granodiorite and the hornfelsed graywacke. These veins are exposed in the tidal zone and in bluffs near the shoreline and extend for hundreds of feet. The veins are in sharp contact with the host rocks, are locally iron-stained, and contain knots and disseminations of pyrite and arsenopyrite. The veins rarely show traces of molybdenite and chalcopyrite. Five samples collected from quartz veins contained from less than 5 to 2,450 ppb gold, from 334 to 1,485 ppm arsenic, and up to 24 ppm molybdenum and 108 ppm copper (map Nos. 96-97). A rubble sample of quartz containing blebs of pyrite and arsenopyrite contained 640 ppb gold and greater than 10,000 ppm arsenic (map no. 96, sample 2771).

Krestof Island (map No. 98)

A gold prospect located on the northwest corner of Krestof Island was examined. Quartz veins are exposed in intercalated graywacke and slate in outcrops adjacent to the beach. Several workings were originally driven to expose these veins, but only a trench and cut in the northwest corner of the island were discovered during this investigation. Quartz veins fill a shear zone in this trench, and strike 082° with a dip varying from 78° northwest to 85° southeast. Veins are up to 0.7 feet wide and contain arsenopyrite, pyrite and oxidized sulfides with calcite and chlorite gangue. Two samples were taken from these quartz veins and one contained visible gold (map No. 98, sample 2008), although analytical results don't support this observation! Analysis of these samples revealed up to 8,050 ppb gold, 1.5 ppm silver, and 152 ppm arsenic (sample 2009).

A second set of quartz veins is located on the beach, 0.25 miles south of the above workings. These anastomosing, subparallel veins generally strike 030° to 040° and dip from 70° to 84° southeast. Sulfides are uncommon in these veins and a single representative sample was taken (map No. 98, sample 2010). Analysis revealed low metal values.

Halleck Island (map No. 99)

During the early 1930's quartz stringers bearing visible gold were discovered at the high tide line on the southwest side of Halleck Island. Subsequent examination revealed the limited extent of these stringers (235). A 5- by 12- by 80-foot-deep shaft, and a 66-foot-long adit were driven along strike of the discovery shear zone that contains the stringers. Subsequent development work, coupled with sloughing, has increased the dimensions of these workings.

Bureau geologists found a 125-foot adit, a flooded 7- by 10-foot shaft, and a dump during this study. The dump extends into the tidal zone and covers the original discovery location (as discerned from the literature). The rusted remains of a concrete-mounted diesel engine and a compressor are located southwest of the adit.

The adit follows a shear zone in graywacke that strikes 330° and dips 43° northeast, and is up to 3.5 feet wide. A two-foot-thick greenstone dike approximately follows the shear zone. Quartz-calcite stringers less than one inch wide are within and adjacent to the shear. Five chip samples from the shear zone and dike contained from less than 5 ppb to 295 ppb gold (map No.99). A bluff composed of massive greenstone is located just east of the adit portal. Overburden prevents exploration to the southeast, beyond the underground workings.

Magoun Island (map Nos. 100-105)

Molybdenite mineralization was reportedly found on the northwest coast of the Magoun Islands during geologic mapping by the USGS. Bureau personnel confirmed this during the current study, and sampled several quartz veins hosted in quartz diorite that contained molybdenite and chalcopyrite. Sulfide-bearing quartz veins are scarce and spaced irregularly over several miles. The sulfide mineralization was found both disseminated and in clots. Sulfide-bearing zones are up to 0.33 feet wide and contained up to 2-3% combined sulfides. These zones are separated by up to 0.25 miles; so although mineralization was found, it is not abundant. Several samples were taken (map Nos. 100-105), and the highest metal values obtained were 1% copper (sample 2012), 800 ppm molybdenum (sample 2011), and 8.0 ppm silver (sample 2012).

Siginaka Island (map Nos. 106-108)

The discovery of pyrite, chalcopyrite, and covellite disseminated in iron-stained greenstone of the Khaz Formation on the northern island of the Siginaka Islands was reported by Loney, et al (188). Current Bureau investigation revealed narrow zones of iron-stained silicified greenstone with sparse pyrite. Five samples were collected from these zones (map Nos.106-108). Sample 2710 (map No. 106) contained 505 ppb gold and 332 ppm copper; the remaining analyses were near or below detection levels.

Warm Springs Bay (map Nos. 110-132)

El Paso Natural Gas Co. staked a large block of claims in 1973 that extended from the north side of Warm Springs Bay to Chatham Strait, a distance of 2.5 miles (321). These claims cover a porphyry copper deposit. Although no information was released by the company about their work, an unpublished Kennecott Corporation report listing the 100 most important mineral deposits in Alaska mentioned this deposit.

Examination revealed copper-molybdenum-zinc mineralization scattered across a one square-mile area stretching from the abandoned townsite of Manleyville east to Chatham Strait and then one mile north up the coast. The mineralization is found at sea level and extends to over 1,700 feet in elevation. The area consists of Eocene hornblende-biotite tonalite (191) and hornblende biotite granodiorite that contain septa and inclusions of Triassic biotite schist, gneiss, amphibolite, and phyllite (191). A hornfels zone was identified in the contact area.

The most extensive zone of copper-molybdenum mineralization is exposed along the north shore of Warm Springs Bay. Tonalite with inclusions of granodiorite contain pyrite, chalcopyrite, and molybdenite disseminated in the silicified tonalite, along the edges of the granodiorite, and in fracture-controlled quartz stringers. Exposures to the west of Manleyville contain mostly pyrite (up to 5%) and little chalcopyrite or molybdenite. To the east of Manleyville, a 300-foot-long exposure contains more abundant chalcopyrite and molybdenite. Twenty chip samples were taken. The mathematical average of sample results was 600 ppm copper and 85 ppm molybdenum. The highest metal values were found in a 10-foot-long chip sample (map No. 129, sample 2718) that contained 1,550 ppm copper and 600 ppm molybdenum. A select sample across a 1.5-foot-thick quartz lens contained 5,300 ppm copper and 925 ppm molybdenum (sample 2725) .

Small amounts of molybdenite and sphalerite were found in narrow quartz stringers hosted in granodiorite about 0.75 miles east of Manleyville. Samples of the stringers contained up to 1,650 ppb molybdenum and 1,100 ppm zinc (map Nos.124-125, samples 2579, 2749). Seven stream sediment samples collected to the east and west of Manleyville did not contain significant metal values. Samples collected from quartz stringers and tonalite located to the north of the 300-foot-long beach showing contained up to 570 ppm copper and 54 ppm molybdenum (map Nos. 126-128, samples 2545-47, 2577) .

Examinations along the ridge crest, 0.5 to 0.75 miles north of Manleyville, revealed significantly less silica alteration and pyrite in the tonalite. Samples collected from the slightly altered tonalite contain variable amounts of pyrite, chalcopyrite, molybdenite, and sphalerite (map Nos. 118-120). Analyses revealed up to 7,200 ppm zinc (sample 2753), 1,900 ppm copper (sample 2587), and 550 ppm molybdenum (sample 2754).

A fault zone found about 1.5 miles northeast of Manleyville extends to Chatham Strait. This zone contains boulders of quartz and silicified tonalite, and a quartz vein containing pyrite, chalcopyrite, and sphalerite. Three samples were taken (map No. 114), and they contained up to 1,750 ppm copper (sample 2751), 544 ppm bismuth, and 2,750 ppm zinc (sample 2584).

Much of the mineralization observed was found along or near a northeasterly striking, steeply dipping shear zone that extends from Manleyville to Chatham Strait. Zinc values increase and molybdenum values decrease to the north-northeast along the zone. The contact between the metamorphic rocks (hornfelsed schist, gneiss, amphibolite and phyllite), and intrusives (tonalite and granodiorite) is at the north edge of the area.

The discontinuous nature of the mineralization and the low metal values do not encourage further surface examination of this deposit. However, geophysics, detailed soil sampling, and drilling might result in the discovery of more extensive, higher-grade mineralization.

Silver Bay Area, Sitka

Prospecting for gold in the Silver Bay area southeast of Sitka began around 1870. Development of the Stewart Mine represents the earliest lode gold deposit to be mined in Alaska. Despite its early beginnings, the Silver Bay area produced only minor amounts of gold. The two most prominent properties were the Stewart and Lucky Chance Mines. Many additional prospects were developed in the area over the years, the names and history of which are somewhat confusing. Numerous adits, shafts, and surface workings remain as evidence of the early prospecting activity.

Gold in the Silver Bay area is associated with discontinuous veins and lenses of quartz that are hosted in graywacke and argillite of the Late Jurassic to Early Cretaceous Sitka Graywacke (191). The quartz veins are up to 16 feet thick (e. g., Stewart), but are generally barren. They commonly include fragments and partings of graywacke and argillite, but very few sulfides. The sulfides present are pyrite, pyrrhotite, arsenopyrite, and rare galena. The veins and lenses are commonly parallel to the structure in the country rock, that is generally northwest-trending and steeply dipping.

Gangola (map No. 134)

Joseph Gangola, a Sitka prospector, staked a tungsten claim on the northeast side of Silver Bay between Herring Cove and Bear Cove. Bureau workers examined the area and found a quartz vein exposed in the bed of a small stream and two additional quartz veins located 130 and 145 feet to the southeast. The veins are hosted in Kelp Bay greenstone. They strike 035° to 070°, dip steeply, and are up to 1.5 feet thick along a 15-foot strike length. Scheelite, chalcopyrite, and pyrrhotite were found in the veins. The southernmost vein is exposed at an elevation of 260 feet by a small open cut measuring 5 feet wide. This vein contained the most sulfides and highest metal values. A 1.5-foot-long chip sample taken across the vein at the cut contained 80 ppb gold, 375 ppm copper, and 380 ppm tungsten (map No. 134, sample 2570). A sample of sulfide-bearing, iron-stained greenstone on either side of the vein contained 570 ppb gold, 960 ppm copper, and 1,100 ppm tungsten (map No. 134, sample 2572). A select dump sample of sulfide-bearing quartz contained 85 ppb gold, 260 ppm copper, and 760 ppm tungsten (map No. 134, sample 2573). Samples of the remaining quartz veins contained up to 450 ppb gold, 169 ppm copper, and 180 ppm tungsten (sample 2575).

Apex (map No. 136)

The Apex prospect is located on the west side of Silver Bay, northwest of the Liberty prospect. Historical reference to this property is limited (180). Bureau geologists examined the Apex area and found abundant quartz float in a small creek, a quartz-breccia vein cropping out in a fault zone, and an eight-foot adit. The vein strikes 330°, dips 75° southwest, and is up to 1.7 feet wide. Arsenopyrite and trace chalcopyrite were found in the vein and associated gouge zone. A sample across the vein (map No. 136, sample 2018) contained 270 ppm copper, 44 ppm arsenic, and 0.2 ppm silver. A select sample of quartz float found in a nearby creek contained 920 ppm copper and 1.0 ppm silver (map No. 136, sample 2017).

Liberty (map No. 137)

The Liberty property is mentioned in a report on mining in Alaska in 1896-1897 (39). Its discovery date is unknown. The property includes two adits that are 30 feet and 300 feet in length. The adits were mapped and sampled during this study. The adits are adjacent to each other and are found within 10 feet of high-tide line on the west side of Silver Bay. The adits cut graywacke, graywacke and phyllite, and slate. In the longer adit, a discontinuous quartz vein is exposed for about 100 feet and is up to 5 feet wide. It is a continuation of a vein that is exposed in a creek 80 feet above the adit. The vein is situated along a fault zone between slate on the footwall, and graywacke and phyllite on the hanging wall. In places the vein forms the matrix of a fault breccia. The quartz contains only minor sulfides, mainly pyrite. Analytical results revealed low precious metal values. The highest gold value was 60 ppb across 3 feet (map No. 137, sample 2236). Most of the samples had elevated arsenic values and two samples contained more than 2 ppm mercury.

Edgecumbe Exploration Lode (map No. 138)

The history of the Edgecumbe Exploration Lode is unknown. A mill was erected on the property, reportedly to process ore from the adjacent workings as well as from other claims in

Silver Bay. The mine is on the Bonanza numbers 22 and 23 claims of the Edgecumbe Exploration Company of the 1940s (J. Burgess, personal communication). The workings include a 120-foot adit with a winze, and a raise to the surface.

Bureau personnel mapped and sampled the adit. The adit was driven in graywacke to undercut a four-foot-wide quartz vein that crops out near the top of the raise. The vein is emplaced along a fault zone. Underground, the quartz reaches a width of five feet, but pinches and swells along strike. The vein is oriented about 320° and dips 60° to 85° to the southwest. It pinches out to the southeast and is cut off by faulting to the northwest. Subhorizontal fault movement after vein emplacement is evident by lineations on the vein's margins. Much of the vein is made up of barren milky quartz, but graphitic ribbon texture is also present. Pyrite and arsenopyrite are present as disseminations as well as localized near the vein ribbons. Analytical results indicated relatively low precious metal values. The highest assays were 1.8 ppm gold in a select sample (map No. 138, sample 2162) and 1.2 ppm gold across 0.7 feet (sample 2161). As elsewhere in the Silver Bay area, high arsenic and elevated mercury values are associated with the higher gold values.

Eureka (map No. 139)

The Eureka prospect is located on the west side of the head of Silver Bay at elevations of 210 feet to 300 feet. Historical information on this prospect is limited to a general map location provided by Knopf (180). Bureau geologists found an 85-foot-long adit at an elevation of 210 feet, and a caved adit to the north at 300 feet elevation. The adit exposes a 2-inch-thick quartz vein in a fault zone that is localized along a slate-graywacke contact. The fault zone strikes 310° and dips 75° southwest. A sample taken across the vein contained 28 ppm gold, 3.2 ppm silver, and 4,060 ppm arsenic (map No. 139, sample 2245). Samples of quartz float taken below the caved adit contained 30 ppb gold and nil silver (map No. 139, sample 2243).

Lower Ledge (map No. 140)

The Lower Ledge prospect initially mentioned in 1905 (65) and again in 1912 (53) is believed to be the same property as the Haley and Rodgers prospect mentioned in a 1898 report (39). No more of the history of the property is known. Bureau personnel located and mapped a 63-foot adit and flooded shaft near the Silver Bay trail at the head of Silver Bay. These workings most closely fit the described location and details of the Lower Ledge prospect. The adit was driven on a 1.5-foot-wide shear zone in Sitka Graywacke and contains quartz stringers up to 0.5 inches wide. The shear is oriented 290° and is vertical to steeply southwest dipping. Samples taken from the adit contained no visible sulfides and had no detectable precious metal values (map No. 140). Samples of quartz from the dump near the shaft contained minor pyrite, arsenopyrite, and a trace of galena. Most of the dump samples had very low precious metal values. One select sample of float from the creek near the shaft contained >2.3 ppm gold (map No. 140, sample 2518).

Stewart (map No. 141)

Gold-bearing quartz veins were discovered at the Stewart Mine in 1872 (180). Mining began in 1877 (171) and included the driving of three adits. In 1879, a 10-stamp mill began to process ore (180). By 1880, the mine was closed and in the following years was the subject of litigation (2). One claim was patented in 1904 (MS567). The current owner is unknown.

Bureau geologists mapped and sampled underground workings and surface exposures during this study. The quartz vein at the Stewart Mine is exposed in outcrop and by the three adits over a horizontal distance of 200 feet and vertical distance of 120 feet. The vein appears to be fault-bounded on both ends and in places is offset by east-northeast-trending faults. The vein reaches a maximum width of over 16 feet, but averages about 5 to 6 feet in width. The quartz locally contains inclusions and partings of graywacke, which hosts the vein. Pyrite is the only visible sulfide present and is concentrated near the inclusions or partings. Analytical results revealed the presence of arsenopyrite as well. Samples of the vein generally contained low gold values. The highest values from Bureau sampling were 3,130 ppb gold over a 3-foot by 5-foot area (map No. 141, sample 2202) and 2,720 ppb gold across 5 feet (map No. 141, sample 2201). A sample of mill concentrate contained 58 ppm gold, 2,000 ppm lead, >1% arsenic, and >0.1% mercury (map No. 141, sample 2222).

Unknown name (map No. 142)

Bureau personnel located an adit 0.5 miles northwest of the Bauer prospect whose name and history is unknown. The adit crosscuts graywacke, and graywacke with interbedded phyllite. Two hundred forty feet from the portal, a 24-foot drift follows a silicified, brecciated zone in graywacke at a contact with greenstone. This sheared zone is oriented 295° and is steeply dipping. Thin quartz stringers are found at a high angle to the shear in this zone. The greenstone southwest of the shear contains minor pyrite on fracture surfaces. Samples from the adit contained very low precious metal values (map No. 142). The highest grade sample contained 60 ppb gold across 3.5 feet (sample 2223). All samples had elevated arsenic values and two contained 1.6 and 1.9 ppm mercury (samples 2225, 2223). The high mercury values correlate with high gold values at this prospect.

Bauer (map No. 143)

The history of the Bauer property is incomplete. It is mentioned in a report as early as 1904 (338), by which time at least 900 feet of workings had been completed. By 1912, a 150-foot drift had been added to the workings (180). Bureau personnel mapped and sampled the Bauer adit. The working crosscuts graywacke and lesser phyllite and drifts along a zone of fine-grained quartz and quartz stringers containing minor amounts of pyrite and pyrrhotite. The quartz-rich zone is localized on a northwest-trending fault, similar to other properties in the Silver Bay area. Analytical results indicated low precious metal values. Sample 2214 (map No. 143) taken across 1.5 feet contained 280 ppb gold and below detection limits of silver. Arsenic was detected and a small mercury anomaly was detected as well.

Pinta Lake (map Nos. 144-146)

Several outcrops of quartz near Pinta Lake, and along the ridge, west of the lake, toward Silver Bay were examined by Bureau geologists during this study. Quartz veins and pods are up to 6 feet wide, however most are barren of sulfide mineralization. The quartz is emplaced in fault zones, but there is little continuity to any of the occurrences. A sample taken near the outlet of Pinta Lake contained 205 ppb gold, 0.4 ppm silver, and 2,550 ppm arsenic (map No. 146, sample 2218).

Free Gold (map No. 147)

The Free Gold prospect was mentioned in a report in 1904 (65) and again in 1912 (53). It was described as being "partly developed" at those times, but no more of the site's history is known. An unpublished claim map of the Silver Bay area locates a Free Gold adit about 0.25 miles north of the northern Lucky Chance Lake. Bureau geologists did not locate the adit in 1995, but collected samples of quartz veins and veinlets from outcrops and trenches in the area. The veins are hosted in massive graywacke that also includes interbeds of phyllite. The veins strike northeast and dip about 70° to the northwest. There are no visible sulfides in the quartz veins, but iron staining is present. Analytical results indicated low precious metal values (map No. 147, samples 2154-2156).

Lucky Chance Mountain (map Nos. 148, 149, 151-154)

While investigating the Lucky Chance Mine, Bureau geologists discovered several adits and trenches driven on quartz veins in the area. One set of workings lies about 0.5 miles southeast of the Lucky Chance adits. These workings consist of 4 trenches and a 20-foot adit. The quartz veins generally strike northwest and dip steeply to the southwest and northeast. They are typically hosted by graywacke and phyllite. Many of the veins are cut by northwest-trending faults. Sulfides are rare. Select samples of iron-stained quartz with pyrite and arsenopyrite contained 4,840 ppb gold (map No. 154, sample 2229) and 2,230 ppb gold (map No. 152, sample 2158).

Bureau personnel examined an adit and trench on the east side of the northern Lucky Chance lake, northeast of the Lucky Chance Mine. The workings expose quartz lenses and stringers that are situated along a fault zone oriented 332° and dipping 67° northeast. The quartz is hosted by phyllite and graywacke and is exposed for 90 feet along strike and 35 feet vertically. Sulfides are rare and include pyrite and arsenopyrite. Precious metal values were low. A select sample taken from float on the northwest side of the same lake contained 1,180 ppb gold (map No. 148, sample 2153).

Lucky Chance (map No. 150)

The Lucky Chance Mine was discovered between 1871 and 1880, but its early history is unclear. By 1887, a 5-stamp mill was in operation and about 60 tons of ore had been processed from two adits. By 1904 a 10-stamp mill, a sawmill and a water-power plant were in operation. Although the total production from the mine is unknown, 1,200 tons of ore were reportedly removed from stopes above the main, 468-foot-long adit. In addition to this adit, workings included a 45-foot adit, a shaft, an open stope or glory hole, and other small open cuts and trenches (257). A detailed study of the property with accompanying maps was done by Roehm in 1940 (257). The Lucky Chance workings were driven on quartz veins and stringers in graywacke and phyllite. The quartz contains gold and minor silver in addition to pyrite, arsenopyrite, plus a trace of galena.

Bureau examination revealed that all workings at the mine site are inaccessible and no mineralized rock is visible in outcrop. Quartz from the mine dumps contains visible gold and two select samples contained 19.3 ppm and 16.9 ppm gold (map No. 150, samples 2210 and 2212, respectively). A sample of mill concentrate contained 27 ppm gold, 13 ppm silver, 1,250 ppm lead and greater than 1% arsenic (map No. 150, sample 2213).

Goddard Hot Springs (map Nos. 156-159)

Radium was first reported at Goddard Hot Springs in 1942 (327). Investigation by USGS geologists in 1955 did not reveal any associated mineral deposits (327). Allanite, monazite, sphene, and zircon found in local granites may account for the elevated radioactive count in the area (309).

Bureau geologists examined the contact between granodiorite and Sitka Graywacke near Crane Cove, north of Goddard Hot Springs, during this study. Hornfelsed graywacke and argillite and crosscutting silicic dikes were found 0.25 miles north of the contact. Some of the dikes grade from pegmatite to granodiorite. The granodiorite to the south of the contact contains pegmatite zones. A cursory examination was also made north and south of the contact. Samples from this work did not reveal radioactive elements.

Red Bluff Bay (map Nos. 160-165)

The Red Bluff Bay deposit is located in the northeast corner of Red Bluff Bay, about 25 air miles southeast of Sitka. The Bay takes its name from the bare reddish-brown weathered surface of chromite-bearing ultramafic rocks that underlie 1.25 square miles on a long ridge north and east of the bay. Steep slopes rise from the shore to the ridge crest that ranges in elevation from 520 to 1,200 feet.

Chromite was first recognized in the area in 1933 when 28 claims were staked. During the 1940s, the Alaska Juneau Mining Company held the claims. The USGS mapped and sampled the deposit in 1941 (104). There has been little exploration activity on the deposit since.

The ultramafic rocks are bounded by faults and it is thought to have been tectonically emplaced. Greenschist and phyllite surround the intrusive mass (191). The ultramafic rocks consist of partly serpentinized dunite and pyroxenite (clinopyroxenite). Pyroxenite predominates in the northwestern half of the area and crops out in large irregular masses. The dunite predominates in the east and southern portions of the body. The pyroxenite and dunite are finely interlayered in places. Pyroxenite is commonly altered to amphibolite. The dunite includes bands of pyroxenite-rich layers that strike north and dip steeply. Chromite is found disseminated in the dunite, and in richer layers and bands within the dunite that are parallel to the pyroxenite bands. Zones containing disseminations and small lenses of chromite are up to 30 feet wide and several hundred feet long. Chromite lenses up to 3 feet wide and 40 feet long have been found. The chromite pods formed as magmatic segregations during cooling of the intrusive mass.

Eight areas of chromite mineralization scattered over a 6,000-foot-long area have been identified by previous workers. These areas contain from 18 to 40 percent Cr_2O_3 and a 30,000-ton resource has been identified. The chromite to iron ratio ranges from 18.65 to 50.56 percent (110).

The Red Bluff Bay chromite deposits are small and low grade and contain an insufficient chrome to iron ratio to attract serious interest from a mining or exploration company. The style of mineralization and characteristics of the intrusive body at Red Bluff Bay is similar to that found at the Hill prospect, but not typical of a zoned Alaska-type ultramafic body common in Southeast Alaska (e.g. Union Bay).

Two pan concentrate samples were taken during this study to determine the presence of platinum-group metals (PGM) in the deposit (map Nos. 160, 162, samples 2036, 2037). Although chromium values were high, only trace amounts of PGM were detected.

Patterson Bay (map Nos. 166-173)

There are no known mineral deposits in Patterson Bay, but a splay off the Chatham Strait fault cuts greenstone and biotite tonalite/hornblende granodiorite along most of the bay. Movement along the fault has produced an extensive area of mylonitization (191), but subsequent movement may have opened up conduits for ore-forming fluids. Bureau geologists examined beach outcrops and took several representative samples (map Nos. 166-173). Outcrops on the west side of the bay consist of metachert, silica breccias, greenstone and chlorite schist, and an extensive section of siliceous intrusive rocks to the north. Sulfide mineralization and quartz veining is sparse in these outcrops. Chalcopyrite-bearing float was found in one location (map No. 173, sample 2033), and molybdenite in another (map No. 169, sample 2715).

The east side of Patterson Bay consists of mylonitized tonalite and greenstone. Examination of this area is hampered by steep cliffs and precipitous terrain. Fragments of silicified tonalite with disseminated pyrrhotite and chalcopyrite were found in talus slopes. Grab samples (map

Nos.165, 171, samples 2533, 2536) of the rubble contained up to 970 ppb gold, 3,100 ppm copper, and 4,820 ppm arsenic. Four stream sediment samples collected in the area contained up to 90 ppb gold (map No. 171, sample 2535) and 102 ppm copper (map No.167, sample 2531).

Snipe Bay (map Nos. 174-180)

Copper-nickel mineralization hosted in mafic intrusive rocks at Snipe Bay has attracted extensive exploration efforts. A USGS report was written on this deposit (234) and Inspiration Development Company drilled the deposit in 1974. A resource estimate for the deposit is roughly 94,000 tons at 0.94% copper and 0.33% nickel (321).

The main deposit was not reevaluated during this study, although beach traverses were made throughout Snipe Bay in search of similar float rocks or other sulfide mineralization. Iron-stained zones visible along the coastal cliffs near the mouth of Snipe Bay, southwest of the known deposit, were barren of mineralization. The staining was due to oxidation of biotite and/or pyrite-pyrrhotite found in the biotite-quartz schist bedrock. Four samples taken in this area all contained low metal values (map Nos. 179-180, samples 2108, 2019-2021). Stream-sediment samples were collected along the northern shore of Snipe Bay and at the head of the bay (map Nos. 174-177). The four samples collected did not contain significant metal values. Sitka Graywacke is the dominant formation in the area.

Redfish Bay (map No. 181)

The Redfish Bay occurrence is located near the head of Troller Bay on the west side of Baranof Island. Geology of the area consists of zoned microcline-perthite-quartz-muscovite pegmatite lenses and dikes hosted in Tertiary hornblende-biotite tonalite (191). The first claims were staked in 1906 (as a gold lode) and the area has not been restaked since. The USGS (267) evaluated the prospect in 1953 and reported that commercially valuable feldspar, mica, and optical quartz were present . The property was reevaluated by the USBM (19) in 1960 and results from that investigation did not support the USGS findings.

A small portion of the pegmatite zone was examined during the current study by Bureau geologists. Radioactive anomalies were not found. Two samples were collected across the zoned pegmatite and no rare-earth elements or other ore minerals were detected.

Port Lucy (map Nos. 182-185)

The only indication of mineralization in the Port Lucy area is a report of an abandoned mining claim in 1906 (333). The area consists of foliated graywacke (striking 330°) that hosts concordant quartz-stringer zones. These zones contain sparse quantities of pyrite and pyrrhotite. Veins sampled at four locations in Port Lucy did not contain significant metal values.

Port Armstrong/Port Conclusion (map Nos. 186-195)

Several individual quartz veins hosted in graywacke and argillite were sampled by Bureau geologists along the shores of Port Conclusion and Port Armstrong. No known deposits are located here, but previous claim staking prompted this investigation. Most quartz veins in the area are concordant to the foliation in the host rock (strike of 310° to 040°), however fracture-filling veins oblique to foliation are also present. An iron-stained area in faulted, silicified graywacke was found on the east side of Port Conclusion. This zone contains a quartz-stockwork that is anomalous in the area, and probably represents the area staked as the 'Lonesome Dollar' claims.

Samples taken during this study contained low metal values (map No. 193, sample 2027). Eleven samples were taken to characterize the sulfide mineralization in the Port Conclusion/Port Armstrong area (map Nos. 186-195). Results were not encouraging. The highest metal values obtained from Bureau samples were 45 ppb gold, 0.2 ppm silver, 455 ppm copper, 12 ppm molybdenum, 44 ppm lead, and 238 ppm zinc.

CONCLUSIONS

The Baranof and Chichagof Islands area contains several areas with medium to high mineral development potential. The productive gold mines in the Klag Bay area (Chichagof and Hirst-Chichagof) and on McCann Creek, near Pelican (Apex El Nido) are currently being explored for additional resources. Magmatic segregation deposits containing nickel, copper, and cobalt are found at Bohemia Basin and Mirror Harbor. A small copper-nickel deposit is hosted in ultramafic rocks at Snipe Bay. Porphyry copper and molybdenum deposits are found at Slocum Arm, Warm Springs Bay, and Patterson Bay. The mineralization at Warm Springs Bay is extensive, and, although of low-grade, merits additional exploration effort.

No new ore bodies were discovered during this study, but several areas of mineralization warrant further investigation. Copper mineralization along the east shore of Patterson Bay was discovered during this study and merits additional work. The Silver Bay area contains several gold prospects, all of these contain very low-grade gold-quartz veins. Weak copper mineralization in skarn was found near Gypsum Creek. High-grade zinc mineralization was examined in a rock pit near East Point, north of Tenakee Inlet. Pods of massive sphalerite with lesser quantities of chalcopyrite and galena were found in marble float boulders on the pit floor. Additional work should be done at this site to determine the extent of mineralization.

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Appendix A - Analytical Results From Mines, Prospects, and Occurrences

Sample data and analytical results are tabulated in table A-1. In addition to the analytical results, the following are listed in the table: map number, field sample number, mineral locality name, sample type, sample size, sample site and sample description. The results are organized by map numbers, and are depicted on the sample locality map (fig. 4). Analytical results from REE sampling at Redfish Bay are presented in table A-2, and carbonate sample analyses are given in table A-3. A list of analytical detection limits is included as table A-4.

Key to Table A-1

All analyses were conducted by a commercial laboratory. Results are given by chemical element symbol in the following units except when noted by an asterisk (*):

Au, Pt, Pd - parts per billion **(ppb)**;

Ag, Cu, Pb, Zn, Mo, Ni, Co, Ba, Cr, Sn, W, Ti, V, Cd, Bi, As, Sb, Hg, Te, Cs, La, Ce, Y, Tb, Yb, Lu, Ta, Th, U, Rb - parts per million **(ppm)**;

Fe, oxides and "Loss on Ignition" (LOI) values - **percent**.

If followed by an asterisk, Au and Ag values are in ppm (denoting assay analysis with gravimetric finish) and other elements (including Cu, Pb, Zn, Mo, Fe) are in percent.

Abbreviations

Abbreviations for **sample types**: (see page 69 for definitions)

	Rock Chip		Stream Sample
C	continuous chip	PC	pan concentrate
CC	chip channel	PL	placer
CH	channel	SS	stream sediment
G	grab		
RC	random chip		
Rep	representative chip		
S	select		
SC	spaced chip		

Abbreviations for **sample sites**:

FL	float	RC	rubblecrop	OC	outcrop
MD	mine dump	TP	trench, pit, or cut		
MT	mill tailings	UW	underground workings		

Abbreviations used in the sample descriptions:

@	at	hem	hematite
adj	adjacent	hnbd	hornblende
alt	altered	hn	hornfels
an	andesite	hw	hanging wall
ar	argillite	ls	limestone
aspy	arsenopyrite	mag	magnetite
az	azurite	mg	medium-grained
bt	biotite	ml	malachite
br	breccia/brecciated	mo	molybdenite
calc	calcite	monz	monzonite
cg	coarse-grained	min	mineralized
cng	conglomerate	msv	massive
chl	chlorite/chloritic	musc	muscovite
cont	continuous	pl	phyllite
cp	chalcopyrite	po	pyrrhotite
di	diorite	porph	porphyry/porphyritic
dissem	disseminated/disseminations	py	pyrite/pyritic
ep	epidote	qt	quartzite
fel	felsic	qz	quartz
fest	iron stained	sed	sediment
fg	fine-grained	sc	schist
fw	footwall	sil	silicified/siliceous
gd	granodiorite	sl	sphalerite
gn	galena	sulf	sulfide
gp	graphite/graphitic	volc	volcanic
gs	greenstone	w/	with
gw	graywacke	xcut	crosscut/crosscutting

Sampling And Analytical Procedures

Sampling

Several types of rock samples were collected, including continuous chip, chip channel, channel, grab, representative chip, select, and spaced-chip. **Continuous chip** samples consist of ore or rock chips taken in a continuous line across an exposure; a **chip-channel** sample is cut across a relatively uniform width and depth of a vein, zone, structure, or mineralized body; **channel samples** consist of chips, fragments, and dust from a channel of uniform width and depth cut across the face or bank of an exposure of ore or mineralized rock; **grab samples** are collections of mineral or rock fragments, some broken from larger pieces, taken more or less at random from an outcrop, as float, or from a dump; **representative chip** samples characterize the rock type or material described in the sample description; **select samples** are grab samples collected from the highest-grade portion of a mineralized zone; and **spaced-chip** samples are composed of rock fragments taken at specified intervals across an outcrop.

Stream sample types include pan concentrate, placer, and stream sediment. **Pan-concentrate** samples are taken to determine whether a placer sample is warranted at a specific location. A pan full of sand and gravel is reduced by normal panning techniques and the resultant concentrate is analyzed inspected for heavy minerals. **Placer samples** consist of 16 pans ($0.1yd^3$) of material processed through a 4-foot-long sluice box. The resultant concentrates are visually examined to ascertain free gold content and are also submitted for analysis. **Stream-sediment** samples are taken from silt to clay-sized particles found in streams or along banks. Metals adsorp to these fine particles and these samples are used as an indicator to determine anomalous metal values in an area.

Analytical Methods and Results

Samples were prepared and subsequently analyzed using both atomic absorption spectrophotometry (AA) and inductively coupled argon plasma (ICP) techniques. Gold was analyzed by fire assay preconcentration followed by an AA finish. If the analysis revealed concentrations in excess of 10,000 ppb gold, a gravimetric finish was performed. Silver, copper, lead, zinc, nickel, cobalt, and molybdenum were usually analyzed by AA techniques. Tungsten was analyzed by colorimetrics. A few samples were analyzed for platinum-group metals using fire-assay techniques. Several samples were analyzed for the same element using two different techniques to quantify analytical error; the result from the more accurate method will be presented in the tables.

Rock samples were dried, crushed, and pulverized to at least minus 100 mesh. A sample weight of 0.5 gm was put into solution using a hot-extraction HNO_3-HCL technique for the AA and ICP analyses.

Limestone samples ($CaC0_3$) were analyzed using standard wet analyses (oxide determinations by ICP and AA) and total carbonate acid/alkali procedures ($CaCO_3$ determined by volumetric/titration method ASTM C-25). Each sample was rinsed, dried, and weighed prior to analysis.

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Al	As	Ba	Be	Bi	Ca	Cd	Cr
1	2132	8-Fathom Bight	S		<5	0.4	179	<2	52	2	17	25	1.58	4	170	0.5	<2	1.17	<0.5	43
2	2133	8-Fathom Bight	SS		<5	<0.2	52	8	90	1	29	21	2.61	8	90	0.5	2	1.42	<0.5	44
2	2073	8-Fathom Bight	PC	4 pans	<5	0.2	40	4	62	1	20	20	1.83	6	120	0.5	2	1.31	<0.5	80
3	2130	8-Fathom Bight	S		<5	<0.2	55	<2	50	<1	25	21	2.84	28	70	0.5	<2	2.25	<0.5	65
3	2071	8-Fathom Bight	Rep		<5	0.2	54	<2	64	<1	21	27	2.1	4	240	0.5	<2	1.4	<0.5	34
4	2131	8-Fathom Bight	SS		<5	<0.2	12	<2	46	<1	10	11	1.99	<2	40	<0.5	<2	1.43	<0.5	52
4	2072	8-Fathom Bight	PC	4 pans	<5	<0.2	16	12	60	6	16	19	0.89	<2	20	<0.5	<2	0.89	<0.5	222
5	2074	8-Fathom Bight	SS		<5	<0.2	56	14	104	1	34	22	2.7	6	40	0.5	<2	0.85	0.5	51
6	2070	8-Fathom Bight	Rep	2	55	0.6	433	4	58	2	7	19	1.21	934	10	0.5	<2	1.33	<0.5	37
7	2134	8-Fathom Bight	SS		<5	<0.2	49	4	70	<1	26	13	2.54	30	90	<0.5	<2	1.65	<0.5	34
8	2135	8-Fathom Bight	SS		<5	<0.2	29	2	50	1	13	10	2.41	4	50	<0.5	<2	1	<0.5	28
9	2136	8-Fathom Bight	SS		<5	<0.2	36	2	70	1	14	12	2.37	12	50	<0.5	<2	1.46	<0.5	47
10	2129	8-Fathom Bight	S		<5	0.2	173	2	60	<1	52	32	0.75	22	10	0.5	2	1.37	<0.5	127
10	2068	8-Fathom Bight	Rep	0.7	<5	0.2	61	4	62	7	8	11	0.69	2	<10	3	2	3.01	<0.5	111
10	2069	8-Fathom Bight	S	2	<5	0.4	91	8	74	3	19	21	1.28	60	60	0.5	<2	1.58	<0.5	62
11	2086	Spasski Creek	S	2	<5	<0.2	**1.15** *	<2	<2	<1	12	11	0.27	<2	20	0.5	4	7.89	<0.5	49
12	2142	Spasski Creek	S		<5	1.3	98	28	34	<1	99	26	0.22	46	<10	0.5	<2	5.94	<0.5	45
12	2087	Spasski Creek	S		<5	<0.2	24	6	<2	<1	32	11	0.68	<2	10	1	4	7.95	<0.5	1050
13	2088	8530 Spur Road	Rep		<5	0.3	98	<1	30	<1	120	39	2.62	<2	70	1	<2	2.25	<0.5	119
14	2089	Suntaheen Creek	S	0.1	<5	<0.2	12	2	12	<1	4	3	0.2	<2	20	0.5	8	>15.00	<0.5	30
15	2090	Iyouktug Creek Rd	Rep	3	<5	<0.2	40	2	106	<1	36	55	3.42	<2	70	1	<2	5.53	0.5	21
16	2143	8535 Road	Rep		<5	0.2	92	1	84	1	72	32	4.25	2	30	0.5	<2	3.81	<0.5	111
16	2144	8535 Road	S		<5	0.2	92	3	50	7	2	29	3.67	<2	40	0.5	<2	3.71	<0.5	24
17	2145	8535 Road	Rep		<5	0.3	295	<1	108	27	14	32	2.81	<2	20	1	4	3.95	<0.5	47
18	2075	False Bay	S		<5	0.2	19	2	38	<1	5	7	0.72	2	40	0.5	6	>15.00	<0.5	20
19	2137	False Bay	C	1.4	<5	<0.2	78	8	62	<1	200	43	3.75	30	30	0.5	<2	5.98	<0.5	229
20		Carbonate samples: See Table A-3																		
21	2076	Gypsum Creek	S	2	<5	<0.2	116	<1	151	6	310	30	0.28	<2	10	<0.5	<2	10.05	0.5	16
21	2077	Gypsum Creek	S	1x2	<5	<0.2	46	<1	14	11	50	14	0.29	<2	30	<0.5	8	>15.00	<0.5	1
21	2078	Gypsum Creek	S	0.5	<5	<0.2	60	<1	32	1	200	42	3.48	2	10	1	4	4.84	<0.5	141
21	2138	Gypsum Creek	S		<5	0.3	24	4	45	2	60	8	0.58	16	10	0.5	<2	8.42	<0.5	70
22	2079	Gypsum Creek	SS		<5	<0.2	79	2	88	6	9	6	2.45	4	40	<0.5	<2	1.47	0.5	17
23	2085	Gypsum Creek	SS		<5	<0.2	41	2	80	3	22	8	3.33	4	40	0.5	2	2.09	0.5	33
24	2084	Gypsum Creek	SS		<5	<0.2	57	2	96	1	20	8	2.11	8	30	<0.5	2	2.33	0.5	25
25	2083	Gypsum Creek	SS		<5	<0.2	79	4	80	3	24	9	2.55	14	30	0.5	<2	2.5	<0.5	23
26	2082	Gypsum Creek	SS		<5	<0.2	70	2	46	5	8	7	2.13	<2	30	0.5	<2	2.32	<0.5	16
27	2081	Gypsum Creek	Rep	2	<5	<0.2	210	<1	28	1	2	26	0.38	<2	<10	0.5	2	3.1	<0.5	43
28	2080	Gypsum Creek	S	1.5x2	<5	<0.2	2200	<1	39	1	9	98	1.12	<2	<10	0.5	4	9.95	<0.5	52
29	2139	Gypsum Creek	S		25	<0.2	1900	<1	15	<1	48	300	0.28	24	<10	<0.5	<2	0.44	<0.5	21
29	2140	Gypsum Creek	Rep		50	0.4	1950	<1	39	28	24	110	0.93	18	<10	1	<2	6.75	<0.5	32
29	2141	Gypsum Creek	C	3.7	<5	0.4	1500	<1	32	2	12	66	0.76	16	<10	0.5	<2	12.8	<0.5	84
30	2165	Gypsum Creek	G		15	<0.2	12	<1	8	4	7	47	0.66	<2	<10	<0.5	<2	0.02	<0.5	112
30	2166	Gypsum Creek	S		<5	<0.2	560	<1	30	<1	5	13	3.38	2	20	<0.5	<2	2.81	<0.5	32
30	2167	Gypsum Creek	G		<5	<0.2	11	4	97	<1	8	<1	0.06	38	<10	<0.5	<2	2.16	1	5

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Fe	Ga	Hg	K	La	Mg	Mn	Na	P	Sb	Sc	Sr	Ti	Tl	U	V	W	Pt	Pd	Sam. Site	Sample Description
1	2132	4.54	<10	40	0.39	20	0.99	375	0.12	1780	4	3	68	0.16	<10	<10	63	<10			TP	Tonalite w/ py/po < 1% near dike
2	2133	4.88	<10	70	0.12	10	1.45	970	0.02	1340	<2	10	71	0.18	<10	<10	96	<10				
2	2073	9.72	<10	50	0.12	10	1.11	445	0.05	1140	<2	6	44	0.31	<10	<10	558	<10				Black sand
3	2130	2.8	<10	40	0.42	10	0.81	330	0.25	980	6	5	151	0.3	<10	<10	74	<10			TP	Banded hn w/ py/po to 1%
3	2071	4.42	<10	10	0.76	20	1.22	385	0.17	1420	4	6	78	0.34	<10	<10	112	<10			OC	Porph mafic volc, py to 5%, fest
4	2131	9.86	<10	40	0.06	<10	0.61	405	0.02	820	<2	2	76	0.12	<10	<10	300	<10				
4	2072	>15.00	<10	470	0.04	20	0.37	615	0.06	680	<2	2	39	0.17	10	<10	1045	<10				Abundant black sand
5	2074	4.81	<10	40	0.08	10	1.84	830	0.01	900	<2	8	53	0.12	<10	<10	76	<10				Elevation 80 feet
6	2070	4.76	<10	10	0.17	20	0.59	545	0.07	2330	4	5	33	0.19	<10	<10	34	<10			TP	Banded hn, py to 8%
7	2134	3.55	<10	40	0.26	<10	1.22	390	0.06	760	<2	7	103	0.19	<10	<10	89	<10				Elevation 100 feet
8	2135	4.77	<10	30	0.12	<10	0.9	390	0.06	790	<2	5	66	0.17	<10	<10	116	<10				Elevation 80 feet
9	2136	6.29	<10	60	0.15	<10	1.09	480	0.07	940	<2	5	158	0.19	<10	<10	167	<10				Elevation 160 feet
10	2129	3.36	<10	110	0.11	20	0.45	255	0.1	210	2	1	19	0.09	<10	<10	23	<10			RC	Banded hn w/ py/po to 3%
10	2068	3.41	<10	30	0.1	130	0.36	595	0.04	240	2	2	51	0.15	<10	<10	26	<10			OC	Felsic dike, py to 10% locally
10	2069	4.5	<10	20	0.44	30	1	575	0.09	2110	4	7	52	0.22	<10	<10	66	<10			OC	Calc-silicate skarn, py to 2%, cp
11	2086	5.38	<10	380	0.06	<10	1.97	1280	0.06	420	4	10	94	<0.01	<10	<10	25	10			OC	Alt sil dike, cp to 5%, py to 10%
12	2142	>15.00	<10	710	0.02	<10	1.53	985	0.01	100	6	3	50	<0.01	<10	<10	22	30			TP	Msv py lenses along alt cng
12	2087	4.24	<10	20	0.3	<10	2.1	1030	0.04	300	4	31	58	<0.01	<10	<10	46	<10			FL	Mariposite-rich fel dike, fest
13	2088	11.05	<10	70	0.33	10	1.04	115	0.27	790	4	4	154	0.4	<10	<10	45	<10			FL	Skarn w/ po to 15%, trace cp
14	2089	2.78	<10	10	0.04	<10	1.65	1035	0.01	150	2	1	1100	<0.01	<10	<10	4	10			OC	Calc vein w/ qz, no sulf
15	2090	8.51	<10	20	0.2	<10	2.54	625	0.02	1860	8	9	381	0.01	<10	<10	133	<10			OC	Porph dike, py to 10%
16	2143	5.51	<10	80	0.09	<10	1.71	625	0.15	800	8	12	109	0.5	<10	<10	163	20			TP	Mafic dike w/ sulf, alt hnbd intrusive
16	2144	5.14	<10	10	0.22	<10	1.77	370	0.37	880	6	12	118	0.38	<10	<10	177	20			TP	Porph hnbd intrusive, sulf to 10%
17	2145	5.2	<10	10	0.31	10	0.83	515	0.11	2120	2	8	47	0.37	<10	<10	81	20			OC	Alt volc at contact w/ ls, sulf to 2%
18	2075	2.64	<10	10	0.12	<10	1.54	1525	0.02	290	4	6	710	<0.01	<10	<10	19	10			OC	Calc veins, py/po to 1%
19	2137	5.02	<10	20	0.09	<10	4.47	710	0.08	530	12	19	326	<0.01	<10	<10	123	10			OC	Felsic dike in ls, 1-2% py, trace cp
20	Carbonate samples: See Table A-3																					
21	2076	>15.00	<10	870	<0.01	<10	0.15	655	<0.01	190	2	2	110	0.03	<10	<10	12	<10			FL	Skarn boulder, cp to 2%, po to 50%
21	2077	6.21	<10	30	<0.01	<10	0.09	1125	<0.01	140	4	<1	213	<0.01	<10	<10	4	10			OC	Marble w/py stringers/stockwork
21	2078	6.24	<10	170	0.17	<10	1.78	155	0.01	1520	8	2	25	0.4	<10	<10	59	<10			OC	Hn w/ po to 5%, trace cp
21	2138	>15.00	<10	50	0.07	<10	0.51	345	0.02	670	2	2	65	0.04	<10	<10	25	20			TP	Msv py seams in fossiliferous ls
22	2079	2.43	<10	230	0.06	10	1.02	285	0.03	720	<2	2	80	0.14	<10	10	56	10				Elevation 200 feet
23	2085	3.38	<10	100	0.08	10	1.94	620	0.03	780	<2	4	104	0.12	<10	<10	79	<10				
24	2084	4.67	<10	70	0.08	10	0.99	440	0.04	730	<2	2	125	0.12	<10	<10	121	<10				
25	2083	3.77	<10	90	0.08	10	1.09	450	0.04	700	<2	2	145	0.11	<10	<10	86	<10				
26	2082	4.14	<10	70	0.07	10	1.15	465	0.03	520	<2	2	115	0.13	<10	<10	105	<10				
27	2081	4.6	<10	30	0.02	<10	0.12	640	0.01	660	2	<1	14	0.02	<10	<10	4	<10			OC	Hn w/ po/cp to 10% combined
28	2080	>15.00	<10	140	0.1	<10	0.03	1420	<0.01	510	2	1	9	0.02	<10	<10	17	<10			OC	Skarn/hn w/ po/cp to 15% combined, locally
29	2139	>15.00	<10	90	<0.01	30	0.08	75	<0.01	210	4	2	4	0.01	<10	<10	9	<10			TP	Msv py/po, some cp in alt intrusive
29	2140	13.5	<10	150	0.01	<10	0.06	815	<0.01	370	6	1	22	0.02	<10	<10	15	30			TP	Skarn w/ py/po to 30%, cp to 3%
29	2141	>15.00	<10	60	<0.01	<10	0.07	1605	<0.01	510	4	2	<1	0.01	<10	<10	22	40			OC	Skarn adj to marble, sulf to 10%
30	2165	7.6	<10	<10	0.03	<10	0.12	150	0.01	90	<2	1	9	<0.01	<10	<10	10	<10			RC	Gossan, sil zone, minor py, trace cp
30	2166	2.86	10	<10	0.03	<10	1.36	155	0.07	390	<2	2	84	0.08	<10	<10	72	<10			RC	Skarn w/ py < 1%, cp
30	2167	0.4	<10	<10	<0.01	<10	9.54	165	<0.01	<10	<2	1	26	<0.01	<10	<10	<1	<10			OC	Alt carbonate rock, py, gray sulf

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Al	As	Ba	Be	Bi	Ca	Cd	Cr
30	2246	Gypsum Creek	Rep		<5	<0.2	83	2	21	0.6	50	42	<2	30	<0.5	<2	3.76	<0.5	8	117
31	2066	Kennel Creek Rd.	Rep	0.4	<5	<0.2	21	2	12	<1	10	3	0.7	<2	30	0.5	<2	0.48	<0.5	165
32	2067	Kennel Creek Rd.	SS		<5	<0.2	24	2	40	7	6	6	3.14	<2	50	<0.5	<2	1.05	<0.5	16
33	2128	8519 Road	S		<5	<0.2	91	<2	20	97	24	19	0.54	6	20	<0.5	<2	1.13	<0.5	122
34	2065	8517 Road, N Spur	SS		<5	<0.2	50	10	122	2	14	12	4.23	<2	50	0.5	<2	0.55	<0.5	39
35	2064	8517 Road, N Spur	S	0.3	<5	0.4	547	<2	134	<1	59	45	0.5	2	20	<0.5	<2	0.82	<0.5	255
36	2125	8518 Road	SS		<5	<0.2	12	<2	52	<1	7	6	2	<2	60	<0.5	<2	0.8	<0.5	19
37	2126	8510 Road	SS		<5	<0.2	12	2	62	1	8	8	2.13	<2	60	<0.5	<2	0.91	<0.5	17
38	2127	8517 Road	S		<5	<0.2	128	4	94	1	76	13	2.74	<2	70	0.5	<2	0.61	<0.5	50
39	2063	8515 Road	S		<5	0.2	37	4	28	1	18	10	0.61	2	20	<0.5	<2	4.21	<0.5	44
39	2062	8515 Road	SS		<5	<0.2	23	4	60	<1	11	10	1.91	6	60	<0.5	<2	0.88	<0.5	18
40	2061	8515 Road	SS		<5	<0.2	36	8	92	<1	18	10	2.94	2	40	<0.5	<2	0.74	<0.5	39
41	2060	8515 Road	SS		<5	<0.2	31	8	112	1	18	15	2.51	12	70	<0.5	<2	1.04	0.5	27
42	2059	8515 Road	SS		<5	<0.2	23	6	88	<1	21	13	2	8	40	<0.5	<2	1.4	<0.5	32
43	2124	8515 Road	S		<5	0.2	132	8	32	<1	23	14	1.55	<2	<10	0.5	<2	1.44	<0.5	202
44	2123	8515 Road	S		40	<0.2	72	4	70	1	30	12	2.77	6	30	0.5	<2	0.56	<0.5	70
45	2058	8515 Road	Rep		<5	<0.2	83	<2	62	<1	13	33	3.07	<2	20	1	<2	1.97	<0.5	13
46	2057	8510 Spur Road	SS		<5	<0.2	30	6	100	<1	18	13	2.13	16	40	<0.5	<2	2.16	<0.5	31
47	2122	8510 Road	G		10	0.2	262	8	110	2	151	31	2.66	8	60	<0.5	<2	1.69	<0.5	26
47	2056	8510 Spur Road	S		<5	<0.2	46	4	56	<1	28	13	2.08	18	100	1	2	6.32	<0.5	57
48	2055	8510 Spur Road	S		<5	<0.2	79	<2	64	<1	45	10	1.87	2	10	0.5	<2	2.1	<0.5	85
48	2053	8510 Spur Road	SS		<5	<0.2	42	6	94	<1	18	16	2.96	8	130	<0.5	<2	2.21	0.5	37
48	2054	8510 Spur Road	S		<5	0.2	275	2	84	2	268	16	1.82	14	20	0.5	2	1.25	<0.5	74
49	2168	East Point	S		<5	0.4	330	<1	23	10	1	28	0.71	<2	10	1	2	2.92	<0.5	23
49	2169	East Point	S		15	2	2900	<1	40	<1	6	361	0.63	<2	10	<0.5	<2	2.7	<0.5	48
49	2170	East Point	G		<5	<0.2	1650	<1	16	1	20	69	0.45	<2	10	<0.5	<2	0.32	<0.5	49
50	2049	East Point Pit	Rep	5	<5	0.2	12	38	1410	<1	1	2	0.08	8	<10	<0.5	8	>15.00	5.5	<1
50	2118	East Point Pit	C	5	<5	0.2	20	4	147	<1	8	36	4.06	28	10	1	<2	1.27	<0.5	4
50	2119	East Point Pit	G		<5	52.0	460	1.74 *	15.3 *	42	96	93	0.47	378	10	0.5	10	12.4	>100.0	8
50	2048	East Point Pit	S	2.5	<5	7.8	220	3000	26.4 *	<1	5	15	0.36	38	10	0.5	22	8.9	>100.0	7
50	2047	East Point Pit	Rep	9	<5	0.3	20	25	1230	1	8	19	2.37	28	60	0.5	<2	5.54	4	19
51	2046	East Point	Rep	5	<5	<.2	8	24	100	<1	3	102	1.48	324	10	<.5	4	14.1	<.5	23
52	2050	Big Ledge	C	10	370	3	1.17 *	<2	174	<1	3400	72	3.71	100	<10	0.5	<2	0.75	<0.5	322
52	2051	Big Ledge	SC	15@0.5	64	8.9	8600	<2	134	<1	1.15 *	210	5.27	790	<10	0.5	<2	3.78	<0.5	711
52	2052	Big Ledge	SC	25@0.5	22	2.9	9400	<2	142	<1	6500	158	3.04	26	<10	0.5	<2	1.31	0.5	287
52	2120	Big Ledge	C	4	502	8.8	2.25 *	30	428	<1	9600	450	4.19	8	<10	<0.5		1.38	2.5	446
52	2121	Big Ledge	S		<5	22	7.02 *	2	1055	<1	4.4 *	910	1.94	40	<10	<0.5		0.57	8	205
53	2742	Hill Point	S	0.3	<5	<.2	280	<1	3	237	1	8	0.41	4	<10	<.5	<2	0.22	<.5	83
53	2743	Hill Point	RC		<5	<.2	59	<1	8	1	4	6	0.54	6	20	<.5	2	0.47	<.5	95
54	2117	Hill Point	Rep		<5	<.2	14	4	42	<1	5	5	1.04	<2	120	<.5	<2	0.68	<.5	76
55	2116	Hill Point	SS		<5	<.2	15	14	32	2	4	15	1.93	4	80	<.5	<2	0.63	<.5	12
56	2566	Tenakee	Rep	3	<5	<.2	33	28	104	1	1	3	0.71	<2	<10	1	<2	1.27	0.5	24
56	2567	Tenakee	Rep		<5	<.2	389	14	60	<1	<1	3	1.16	<2	20	1	<2	3.41	<.5	13
56	2741	Tenakee	G		<5	<.2	26	10	70	<1	5	4	1.12	4	20	0.5	<2	0.77	<.5	62
57	2150	Whitestripe Marble	G		530	0.8	27	12	46	<1	8	9	2.07	658	20	<0.5	<2	>15.00	<0.5	20

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Fe	Ga	Hg	K	La	Mg	Mn	Na	P	Sb	Sc	Sr	Ti	Tl	U	V	W	Pt	Pd	Sam. Site	Sample Description
30	2246	10	<10	0.03	<10	0.12	50	<1	8	4	1	374	0.04	<10	<10	48	<10	18			OC	Intrusive/ls contact, trace cp, py
31	2066	0.96	<10	<10	0.2	10	0.14	180	0.09	190	<2	<1	127	0.04	<10	<10	18	<10			OC	Syenite pegmatite, k-spar, bt
32	2067	4.06	<10	30	0.07	10	0.49	315	0.04	690	<2	3	140	0.17	<10	<10	105	<10				Elevation 380 feet
33	2128	2.87	<10	470	0.09	10	0.21	300	0.09	840	2	2	34	0.23	<10	<10	38	<10			FL	Intrusive w/ 2% py/po, gneissic
34	2065	3.58	<10	110	0.08	10	1.09	485	0.01	1100	<2	8	46	0.25	<10	<10	89	<10				Elevation 350 feet
35	2064	4.1	<10	30	0.09	<10	0.31	125	0.02	150	2	1	23	0.06	<10	<10	24	<10			TP	Qz vein w/ calc, py/po to 5% locally
36	2125	3.22	<10	30	0.13	<10	0.64	375	0.03	640	<2	3	87	0.19	<10	<10	74	<10				Elevation 620 feet
37	2126	4.12	<10	40	0.13	10	0.63	850	0.03	660	<2	3	98	0.18	<10	<10	83	<10				Elevation 180 feet
38	2127	4.45	<10	<10	0.3	10	1.95	485	0.03	900	4	10	46	0.32	<10	<10	73	<10			TP	Arg w/ minor py, fest
39	2063	1.53	<10	<10	0.1	<10	0.18	255	0.09	620	2	<1	24	0.14	<10	<10	21	<10			FL	Chert cng w/ py/po to 5%
39	2062	3.37	<10	20	0.12	10	0.67	575	0.03	780	<2	4	78	0.14	<10	<10	91	<10				Elevation 100 feet
40	2061	3.14	<10	70	0.07	<10	1.2	380	0.01	790	<2	7	87	0.21	<10	<10	92	<10				Elevation 100 feet
41	2060	4.57	<10	60	0.12	10	1.07	1510	0.02	890	<2	7	50	0.15	<10	<10	97	<10				
42	2059	3.37	<10	40	0.09	<10	1.14	960	0.02	760	<2	4	59	0.14	<10	<10	76	<10				Elevation 100 feet
43	2124	2.89	<10	30	0.01	<10	0.64	390	<0.01	480	<2	1	262	0.35	<10	<10	55	<10			FL	Qz in arg w/ py/po, trace cp
44	2123	4.62	10	20	0.2	10	1.95	490	0.03	900	<2	8	14	0.32	<10	<10	81	<10			RC	Arg w/ dissem py <1% along fractures
45	2058	7.44	<10	20	0.1	20	1.84	775	0.07	1050	4	13	35	0.85	<10	<10	215	<10			OC	Arg w/ py/po to 3%
46	2057	3.7	<10	50	0.13	<10	1.24	670	0.01	880	<2	5	79	0.18	<10	<10	63	<10				Elevation 200 feet
47	2122	4.96	10	70	0.24	10	1.22	310	0.21	2070	2	6	105	0.3	<10	<10	128	<10			TP	Metavolc w/ 2% py/po, trace cp, fest
47	2056	2.28	<10	<10	0.54	<10	0.93	500	0.16	700	6	7	193	0.24	<10	<10	75	<10			OC	Latite dike w/ py to 1% locally
48	2055	2.33	<10	100	0.07	10	0.85	205	0.11	630	4	3	19	0.2	<10	<10	73	<10			OC	Sil volc br w/ py/po, trace cp (?)
48	2053	4.56	<10	40	0.3	<10	1.86	735	0.07	1150	<2	9	112	0.23	<10	<10	131	<10				Elevation 460 feet
48	2054	2.98	<10	50	0.08	10	1.23	260	0.07	710	2	6	32	0.22	<10	<10	88	<10			FL	Sil volc br w/ py/po, trace cp
49	2168	>15.00	10	10	0.02	<10	0.03	910	0.01	<10	<2	<1	8	<0.01	<10	<10	82	240			OC	Calc-silicate skarn, py/po/cp to 2%
49	2169	>15.00	10	10	0.01	<10	0.03	785	<0.01	<10	<2	<1	14	0.01	<10	<10	72	140			TP	High grade sulf, same location as 2168
49	2170	3.64	<10	<10	0.02	<10	0.13	60	0.06	940	<2	4	17	0.08	<10	<10	46	<10			OC	Alt intrusive/ls contact, py to 3%, cp
50	2049	0.2	<10	100	<0.01	<10	0.13	150	<0.01	170	4	<1	309	<0.01	<10	<10	2	<10			TP	Ls adj to mafic dike, ankerite/siderite, py
50	2118	10.05	<10	10	0.05	20	2.65	1180	0.03	4770	4	19	39	0.08	<10	<10	209	<10			TP	Alt mafic dike, py/po, fest
50	2119	4.86	<10	6460	0.15	<10	3.2	1200	0.01	730	124	6	341	<0.01	<10	<10	18	30			TP	Marble w/sl to 20%, gn to 1%, cp
50	2048	4.57	<10	16400	0.14	<10	2.17	1225	0.01	490	<2	3	269	<0.01	<10	<10	10	70			TP	Ls boulders w/ sl to 50% in clots
50	2047	5.75	<10	40	0.11	<10	2.36	775	0.08	3960	6	12	124	0.13	<10	<10	20	<10			TP	Mafic dike/ls contact, py to 5%
51	2046	6.46	<10	<10	0.06	<10	0.87	1225	0.04	1770	<2	7	262	0.06	<10	<10	19	<10			OC	Mafic dike in ls, dissem py
52	2050	11	<10	30	0.04	10	2.94	460	0.07	300	4	8	62	0.15	<10	<10	95	<10	135	440	OC	Mafic dike, cp/po/ml to 5%
52	2051	8.53	<10	40	0.02	<10	5.45	885	0.04	220	<2	17	153	0.05	<10	<10	125	20	135	296	OC	Mafic dike, cp/po to 2%
52	2052	6.95	<10	30	0.03	10	2.7	650	0.07	620	2	15	40	0.11	<10	<10	123	<10	170	166	OC	Mafic dike, cp, ml, az to 10%, po in clots
52	2120	13.7	<10	20	0.05	10	4.06	560	0.1	200	<2	14	49	0.11	<10	<10	127	40	75	412	OC	Mafic dike, stringers of cp, pentlandite
52	2121	>15.00	<10	20	0.04	10	1.83	310	0.02	210	<2	12	14	0.04	<10	10	86	<10	<5	<2	OC	High grade of 2120 location, 50% sulf
53	2742	1.25	<10	<10	0.09	<10	0.04	115	0.12	90	<2	<1	18	0.03	<10	<10	6	<10			OC	Fest selvage on fel dike w/ mo, cp
53	2743	1.16	<10	20	0.19	<10	0.24	100	0.11	330	<2	1	14	0.1	<10	<10	20	<10			OC	Monzonite dikes in hn, trace cp
54	2117	2.52	<10	10	0.4	<10	0.69	365	0.08	350	2	3	18	0.14	<10	<10	63	<10			OC	Hnbd-bt gd w/ mag
55	2116	3.17	<10	130	0.08	<10	0.31	1040	0.14	660	<2	2	64	0.11	<10	<10	71	<10				Elevation 10 feet
56	2566	2.14	<10	210	0.11	20	0.26	550	0.04	260	<2	<1	21	0.03	<10	<10	8	<10			OC	Granite w/ k-feldspar
56	2567	2.13	<10	150	0.08	10	0.24	465	0.05	240	2	<1	175	0.04	<10	<10	23	<10			RC	Pink-red granitic dikes
56	2741	2.28	<10	90	0.2	10	0.49	560	0.09	590	8	2	43	0.08	<10	<10	28	<10			FL	K-feldspar-rich sand (alaskite)
57	2150	4.5	<10	13840	0.04	<10	4.65	590	<0.01	200	<2	5	483	0.02	<10	<10	46	<10			FL	Marble w/ dissem py to 5%

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Al	As	Ba	Be	Bi	Ca	Cd	Cr
58	2216	Whitestripe Marble	Rep	2	35	<0.2	10	14	24	2	1	<1	1.05	660	60	<0.5	<2	0.04	<0.5	95
59	2217	Whitestripe Marble	Rep	2.5	50	<0.2	1	8	36	1	1	1	0.95	246	60	<0.5	<2	0.8	<0.5	62
60	2758	Whitestripe Marble	SS		20	<0.2	167	2	84	3	48	28	3.76	14	<10	<0.5	<2	2.69	<0.5	63
61	2759	Whitestripe Marble	G		<5	<0.2	85	2	76	4	22	31	3.84	6	10	<0.5	<2	2.12	<0.5	12
61	2760	Whitestripe Marble	RC		<5	0.3	1	<2	4	11	1	<1	0.05	2	<10	<0.5	<2	>15.00	<0.5	1
62	2589	Whitestripe Marble	G		90	2.4	3780	<2	4	<1	2	1	0.39	2	<10	<0.5	<2	1.94	1	41
63	2603	Whitestripe Marble	Rep	0.2	<5	<0.2	11	<1	7	<1	15	4	0.64	<2	<10	<0.5	<2	1.11	<0.5	152
63	2779	Whitestripe Marble	RC		<5	<0.2	110	<1	80	2	226	42	5.54	22	20	<0.5	<2	3.3	<0.5	565
63	2780	Whitestripe Marble	G		<5	<0.2	830	<1	90	<1	72	27	4.52	4	<10	<0.5	<2	5.31	<0.5	209
64	2588	Golden Gate #1	C	2.2	1260	0.3	23	<1	42	<1	13	4	0.4	224	20	<0.5	<2	1.36	<0.5	44
64	2591	Golden Gate #1	CC	3.5	3260	0.6	37	9	83	<1	22	9	0.75	414	90	<0.5	<2	1.27	<0.5	47
64	2592	Golden Gate #1	CC	3.4	1230	0.7	6	80	140	<1	8	3	0.11	128	170	<0.5	<2	0.46	1	141
64	2593	Golden Gate #1	CC	4.5	2070	0.8	27	9	85	<1	28	12	0.46	316	40	<0.5	<2	1.48	<0.5	107
64	2757	Golden Gate #1	C	5	860	0.3	7	4	14	1	8	2	0.18	1345	60	<0.5	<2	0.42	<0.5	216
64	2763	Golden Gate #1	C	0.9	**12.5** *	6.2	17	73	46											
64	2764	Golden Gate #1	C	3.1	**27.6** *	13	11	148	37											
64	2765	Golden Gate #1	C	4.7	1250	0.6	9	<1	11											
64	2766	Golden Gate #1	C	4.6	850	0.5	11	10	11											
64	2767	Golden Gate #1	C	4.6	1200	1.8	15	6	23	1	13	3	0.21	580	40	<0.5	<2	0.41	<0.5	220
64	2768	Golden Gate #1	C	2.3	1010	0.3	16	1	98	2	15	5	0.26	216	30	<0.5	<2	0.52	<0.5	182
65	2590	Whitestripe Marble	G		<5	<0.2	117	<2	56	<1	42	30	4.35	30	10	<0.5	<2	5.39	<0.5	178
66	2761	Whitestripe Marble	G	5x5	<5	<0.2	106	8	52	3	39	11	1.23	14	320	<0.5	<2	0.49	<0.5	156
66	2762	Whitestripe Marble	RC	5	<5	<0.2	57	2	66	6	32	10	1.95	2	160	<0.5	<2	0.92	<0.5	124
67	2778	Whitestripe Marble	RC	50	15	0.3	1950	<1	56	2	146	28	3.31	6	<10	<0.5	<2	1.34	<0.5	161
68	2602	Whitestripe Marble	G		<5	<0.2	220	<1	44	14	137	91	3.62	14	<10	<0.5	<2	0.77	<0.5	182
69	2776	Slocum Arm Moly	RC		<5	<0.2	65	<1	92	3	36	18	2.37	8	10	<0.5	<2	1.29	<0.5	109
69	2777	Slocum Arm Moly	RC		<5	<0.2	103	<1	25	2	75	17	2.92	4	10	<0.5	<2	2.33	<0.5	89
70	2772	Slocum Arm Moly	RC		10	<0.2	570	<1	9	5	4	2	0.33	18	<10	<0.5	2	0.29	<0.5	196
70	2773	Slocum Arm Moly	Rep	100x100	<5	<0.2	60	<1	6	6	6	2	0.33	14	<10	<0.5	2	0.38	<0.5	293
70	2774	Slocum Arm Moly	RC	0.3	25	<0.2	500	<1	5	2	8	1	0.55	4	<10	<0.5	<2	0.83	<0.5	289
70	2775	Slocum Arm Moly	RC		<5	<0.2	137	<1	23	5	41	11	3.54	4	<10	<0.5	<2	3.91	<0.5	119
71	2598	Slocum Arm Moly	RC	5	<5	<0.2	4	<1	19	<1	1	<1	0.53	6	10	<0.5	<2	0.33	<0.5	89
72	2599	Slocum Arm Moly	G		<5	<0.2	9	<1	17	<1	1	<1	0.39	4	<10	<0.5	<2	0.17	<0.5	104
73	2600	Slocum Arm Moly	Rep	1.5	<5	<0.2	21	<1	13	<1	2	<1	0.34	2	<10	<0.5	<2	0.21	<0.5	104
74	2601	Slocum Arm Moly	Rep		<5	<0.2	30	1	17	<1	2	1	0.74	<2	<10	<0.5	<2	0.68	<0.5	107
75	2503	Deep Bay	SS		<5	<.2	35	8	40	3	19	9	2.65	<2	20	<.5	2	0.67	<.5	46
75	2504	Deep Bay	SS		<5	<.2	38	14	36	4	6	4	1.86	<2	20	<.5	<2	0.89	<.5	14
75	2505	Deep Bay	Rep	3	<5	<.2	16	4	32	<1	4	2	0.64	<2	40	<.5	<2	0.2	<.5	101
75	2703	Deep Bay	G		<5	<.2	67	<2	40	2	2	5	1.25	<2	10	<.5	<2	1	<.5	83
76	2501	Deep Bay	PC		<5	<.2	18	4	38	1	29	9	1.43	<2	20	<.5	2	0.81	<.5	292
76	2502	Deep Bay	SS		<5	<.2	40	10	44	9	25	10	3.8	2	30	0.5	4	0.59	<.5	63
76	2700	Deep Bay	PC		<5	<.2	18	2	54	2	20	9	1.86	<2	40	<.5	2	0.91	<.5	165
76	2701	Deep Bay	PC		125	<.2	18	4	38	3	25	7	1.37	2	20	<.5	2	0.73	<.5	172
76	2702	Deep Bay	G		<5	<.2	76	8	136	<1	19	16	3.62	6	40	<.5	2	2.81	<.5	51
77	2506	Deep Bay	Rep	0.5	<5	<.2	35	<2	6	<1	11	5	0.24	<2	<10	<.5	<2	0.12	<.5	251

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Map No.	Sam. No.	Fe	Ga	Hg	K	La	Mg	Mn	Na	P	Sb	Sc	Sr	Ti	Tl	U	V	W	Pt	Pd	Sam. Site	Sample Description
58	2216	1.27	<10	680	0.23	<10	0.39	125	0.04	150	<2	<1	17	<0.01	<10	<10	1	<10			OC	Latite dike, sil, fest, near ls contact
59	2217	1.21	<10	220	0.23	<10	0.36	255	0.02	170	<2	<1	19	<0.01	<10	<10	1	<10			OC	Granitic dike, py to 15% in clots
60	2758	6.01	10	20	0.01	<10	2.35	710	<0.01	540	<2	9	40	0.6	<10	<10	199	<10				
61	2759	8.81	<10	150	0.03	<10	2.54	1250	<0.01	1520	<2	4	38	0.73	<10	<10	77	<10			OC	Metabasalt/gs, near contact w/ marble
61	2760	0.15	<10	320	0.01	<10	0.59	435	<0.01	30	<2	<1	731	<0.01	<10	<10	1	<10			OC	Marble w/ py
62	2589	0.46	<10	20	0.07	<10	0.14	55	<0.01	20	<2	<1	19	0.02	<10	<10	7	<10			FL	Red-green jasper w/ qz, dissem cp
63	2603	0.75	<10	<10	<0.01	<10	0.27	145	<0.01	30	<2	1	55	0.06	<10	<10	29	<10			OC	Qz vein w/ epidote
63	2779	7.37	10	460	<0.01	<10	5.35	770	<0.01	480	<2	25	60	0.46	<10	<10	202	<10			OC	Goon Dip contact w/ Marble
63	2780	5.73	10	150	<0.01	<10	2.61	650	<0.01	690	<2	10	43	0.61	<10	<10	206	<10			FL	Olivine basalt
64	2588	1.63	<10	10	0.08	<10	0.51	360	<0.01	310	<2	1	183	<0.01	<10	<10	7	3			UW	Qz vein w/ gw ribbons, sulf to 2%
64	2591	2.51	<10	20	0.09	<10	0.72	420	<0.01	490	<2	1	157	<0.01	<10	<10	12	4			UW	Shear zone w/ qz and gw
64	2592	0.94	<10	50	0.07	<10	0.19	150	<0.01	160	<2	<1	74	<0.01	<10	<10	2	3			UW	Qz vein w/ 15% gw
64	2593	2.84	<10	120	0.14	<10	0.61	405	<0.01	460	<2	2	227	<0.01	<10	<10	9	6			UW	Qz vein
64	2757	0.76	<10	70	0.08	<10	0.18	145	<0.01	100	<2	<1	57	<0.01	<10	<10	4	2			OC	Qz vein w/ gp sc partings, <1% py
64	2763																	5			UW	Qz vein w/ gp partings, <1% py
64	2764																	2			UW	Qz vein w/ gp partings, py to 5%
64	2765																	2			UW	Qz vein w/ gp partings, 1% py
64	2766																	2			UW	Qz vein w/ gp partings; br, <1% py
64	2767	1.14	<10	80	0.11	<10	0.15	110	<0.01	120	<2	<1	92	<0.01	<10	<10	4	4			UW	Qz vein w/ br fragments, gp partings
64	2768	1.55	<10	70	0.11	<10	0.24	140	<0.01	160	2	<1	98	<0.01	<10	<10	4	5			UW	Qz vein w/ gp br and fault gouge, py
65	2590	5.14	<10	20	0.06	<10	4.1	305	<0.01	470	2	21	126	<0.01	<10	<10	174	<10			RC	Sil gs w/ py
66	2761	3.12	<10	320	0.07	<10	1.05	585	<0.01	500	<2	7	21	0.18	<10	<10	56	<10			FL	Chl/gp sc, adj to marble, 1-2% py
66	2762	3.32	<10	290	0.15	<10	1.38	620	<0.01	770	<2	7	41	0.25	<10	<10	75	<10			OC	Fest gp sc w/ qz boudins
67	2778	4.21	<10	20	0.02	<10	2.95	400	0.08	420	<2	2	54	0.34	<10	<10	102	<10			OC	Goon Dip Gs, near contact
68	2602	9.75	<10	200	0.13	<10	3.77	1400	<0.01	850	<2	17	20	0.5	<10	<10	168	<10			RC	Fest gs w/ sparse py
69	2776	4.56	10	40	0.04	<10	1.63	590	0.14	740	<2	5	39	0.45	<10	<10	101	<10			OC	Intermediate sill in gs; sil fractures
69	2777	1.89	<10	<10	0.08	<10	1.29	260	0.17	250	<2	2	52	0.12	<10	<10	58	<10			OC	Fg diabasic dike, xcuts sill in 2776
70	2772	0.68	<10	50	<0.01	<10	0.15	35	0.01	80	<2	<1	5	0.02	<10	<10	18	<10			OC	Qz veinlets in gs w/ <1% cp
70	2773	1.11	<10	60	<0.01	<10	0.12	45	<0.01	100	<2	1	1	0.09	<10	<10	22	<10			OC	Qz vein swarm xcut gs, <1% py
70	2774	0.47	<10	360	<0.01	<10	0.03	25	0.01	50	<2	<1	2	0.01	<10	<10	9	<10			OC	Qz vein w/ <1% cp + mo
70	2775	1.8	<10	20	0.03	<10	0.94	240	0.11	330	<2	3	67	0.12	<10	<10	61	<10			OC	Intermediate sill in gs; sil fractures
71	2598	0.47	<10	20	0.08	<10	0.07	265	0.04	70	<2	<1	10	0.01	<10	<10	2	<10			OC	Gd
72	2599	0.57	<10	10	0.07	<10	0.12	295	0.04	50	<2	<1	4	0.02	<10	<10	6	<10			OC	Fest gd, sparse sulf
73	2600	0.45	<10	10	0.03	<10	0.09	255	0.05	30	<2	1	3	0.02	<10	<10	6	<10			OC	Qz lens hosted in gs
74	2601	0.71	<10	<10	0.04	<10	0.16	220	0.03	120	<2	1	7	0.04	<10	<10	16	<10			OC	Qz veins and stringers, barren
75	2503	3.19	10	90	0.08	10	0.7	495	0.03	470	<2	4	43	0.24	<10	<10	83	<10				elevation 190 feet
75	2504	2.14	<10	80	0.08	10	0.44	285	0.05	400	<2	3	37	0.16	<10	<10	52	<10				elevation 310 feet
75	2505	0.95	<10	<10	0.15	<10	0.18	205	0.09	70	<2	1	11	0.06	<10	<10	9	<10			OC	Gd w/ sparse fest
75	2703	1.76	<10	20	0.13	10	0.55	400	0.06	340	<2	4	27	0.14	<10	<10	42	<10			OC	Bt gneiss, <1% py, chl
76	2501	2.02	<10	10	0.13	10	0.83	420	0.09	130	<2	6	47	0.15	<10	<10	59	<10				Mag in sample
76	2502	4.13	10	110	0.07	10	0.72	655	0.06	510	<2	6	44	0.28	<10	<10	92	<10				elevation 110 feet
76	2700	2.46	<10	10	0.18	<10	0.86	605	0.09	150	<2	5	48	0.15	<10	<10	52	<10				Elevation 60 feet
76	2701	1.84	<10	10	0.12	10	0.7	365	0.08	110	<2	4	41	0.12	<10	<10	45	<10				Elevation 40 feet
76	2702	3.5	<10	20	0.11	<10	0.67	540	0.21	1030	<2	9	132	0.16	<10	<10	171	<10			FL	Dark-green amphibolite w/ <1% py
77	2506	0.72	<10	10	0.01	<10	0.11	30	0.01	50	2	<1	3	0.01	<10	<10	7	<10			FL	Qz w/ py blebs to 5%

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Al	As	Ba	Be	Bi	Ca	Cd	Cr
78	2704	Deep Bay	PC		<5	<.2	34	4	82	3	70	14	2.02	<2	20	<.5	2	1.06	<.5	191
79	2001	Arthur Point	PC	4 pans	5	<.2	33	4	72	<1	14	15	2.4	<2	50	<.5	2	1.45	<.5	162
79	2002	Arthur Point	PC	4 pans	10	<.2	38	2	62	<1	13	12	2.69	<2	50	<.5	2	2.06	<.5	103
80	2003	Arthur Point	PC	4 pans	<5	<.2	61	2	64	<1	38	15	2.74	<2	30	<.5	<2	2.25	<.5	144
80	2007	Arthur Point	SS		<5	<.2	68	2	68	<1	18	14	4.08	4	40	<.5	4	2.2	<.5	25
81	2004	Arthur Point	PC	4 pans	<5	<.2	31	2	70	<1	15	12	2.4	<2	40	<.5	<2	1.65	<.5	120
82	2005	Arthur Point	SS		<5	<.2	86	2	62	<1	11	19	3.41	2	140	<.5	<2	1.1	<.5	21
82	2006	Arthur Point	SS		<5	<.2	62	2	84	1	14	16	5.29	2	130	0.5	<2	1.5	<.5	22
83	2149	Rodman Bay	SS		45	0.2	73	8	140	1	42	16	3.38	34	120	<0.5	<2	1.06	<0.5	88
83	2204	Rodman Bay	Rep	25	45	<0.2	31	4	56	<1	15	7	1.44	4	60	<0.5	<2	7.83	<0.5	110
83	2205	Rodman Bay	Rep	25	<5	<0.2	22	4	52	<1	12	6	1.24	6	20	<0.5	2	7.22	<0.5	84
83	2206	Rodman Bay	Rep	15	20	<0.2	27	2	58	<1	17	7	1.48	2	240	<0.5	<2	7.06	<0.5	121
83	2207	Rodman Bay	Rep	10	<5	<0.2	20	2	48	<1	13	5	1.16	<2	60	<0.5	2	9.47	<0.5	94
83	2208	Rodman Bay	Rep	5	<5	<0.2	28	2	62	<1	17	7	1.48	4	40	<0.5	<2	5.31	<0.5	108
83	2209	Rodman Bay	Rep	5	<5	<0.2	17	4	32	<1	8	2	0.73	2	30	<0.5	2	10.4	<0.5	104
84	2740	Kelp Bay	G	50	<5	1	1810	<2	26	<1	16	18	0.29	<2	<10	<.5	<2	0.69	<.5	294
85	2565	Kelp Bay	C	2	<5	<.2	22	<2	48	<1	2	1	1.03	<2	60	<.5	2	0.52	<.5	57
85	2739	Kelp Bay	Rep	100	<5	2	301	4	8	2	4	18	0.34	<2	20	<.5	<2	0.17	<.5	226
86	2738	Kelp Bay	Rep	35	<5	<.2	61	<2	10	<1	7	3	0.36	2	<10	<.5	<2	1.49	<.5	298
87	2564	Lost Anchor	S	0.4	<5	1.4	4060	2	40	1	109	156	1.74	<2	<10	<.5	4	1.88	<.5	147
88	2561	Lost Anchor	S	0.2	<5	<.2	49	<2	6	6	6	3	0.45	6	<10	<.5	2	0.65	<.5	186
88	2562	Lost Anchor	C	3.75	<5	<.2	11	<2	4	2	5	1	0.29	2	<10	<.5	<2	0.4	<.5	244
88	2563	Lost Anchor	Rep	0.3	<5	<.2	108	4	24	4	24	13	0.98	6	<10	<.5	<2	3.32	0.5	94
89	2737	Kelp Bay	Rep		<5	0.2	365	<2	6	1	10	26	0.36	<2	<10	<.5	2	0.45	<.5	331
90	2112	Kelp Bay	Rep		<5	<.2	192	8	32	<1	12	6	0.18	2	10	<.5	<2	1.93	<.5	184
91	2043	Kelp Bay	Rep	0.7x1	10	<.2	14	8	62	1	4	2	0.2	210	10	<.5	6	2.21	<.5	265
92	2042	Kelp Bay	SS		<5	<.2	38	4	98	1	33	26	2.61	24	70	0.5	4	1.23	<.5	44
93	2045	Kelp Bay	Rep	6	<5	0.5	118	8	56	1	53	18	1	10	90	<.5	<2	0.06	<.5	177
93	2114	Kelp Bay	Rep		<5	<.2	51	6	44	<1	20	9	0.89	<2	80	<.5	<2	0.24	<.5	167
93	2115	Kelp Bay	G		<5	0.3	230	4	110	<1	83	44	2.33	4	70	<.5	<2	1.63	<.5	100
94	2044	Kelp Bay	Rep		<5	<.2	128	<2	164	<1	26	26	4.62	2	10	<.5	6	2.35	<.5	61
94	2113	Kelp Bay	G		<5	<.2	585	2	310	<1	41	58	3.38	<2	<10	<.5	2	0.52	1.5	202
95	2568	False Eagle	PC		95	<0.2	22	6	90	<1	30	11	2.43	20	120	<0.5	<2	0.59	<0.5	191
95	2569	False Eagle	SS		45	<0.2	26	6	92	<1	26	10	2.5	48	40	<0.5	<2	0.4	<0.5	74
96	2596	Sealion Cove	S		1160	0.9	108	<1	29	24	5	7	1.52	512	40	<0.5	22	1.02	1	89
96	2597	Sealion Cove	Rep	0.4	100	0.4	44	10	20	1	2	1	0.46	1485	40	<0.5	<2	0.33	<0.5	101
96	2771	Sealion Cove	G		640	8	39	102	13	3	4	1	0.38	>10000	80	<0.5	70	0.07	<0.5	186
97	2594	Sealion Cove	Rep	0.4	<5	0.2	37	7	30	1	3	1	0.59	334	40	<0.5	<2	0.55	<0.5	97
97	2595	Sealion Cove	Rep		<5	<0.2	6	<1	11	1	3	1	0.29	798	30	<0.5	<2	0.1	<0.5	168
97	2769	Sealion Cove	G		2450	0.9	75	<1	4	7	4	1	0.03	416	<10	<0.5	54	0.01	<0.5	320
97	2770	Sealion Cove	G		10	0.8	66	4	23	3	1	<1	0.38	120	30	<0.5	<2	0.22	<0.5	78
98	2008	Krestof Island	C	0.5x10	380	<.2	7	16	78	<1	10	3	0.5	60	100	<.5	<2	0.49	<.5	248
98	2009	Krestof Island	C	0.3x7	8050	1.5	12	40	62	<1	9	7	1.09	152	70	<.5	<2	0.46	<.5	226
98	2010	Krestof Island	Rep	7	45	<.2	5	4	28	<1	6	2	0.64	<2	20	<.5	2	1.15	<.5	207
99	2705	Halleck Island	C	0.5	<5	<.2	24	2	60	<1	71	10	1.68	4	290	<.5	2	14.05	<.5	109

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Fe	Ga	Hg	K	La	Mg	Mn	Na	P	Sb	Sc	Sr	Ti	Tl	U	V	W	Pt	Pd	Sam. Site	Sample Description
78	2704	2.33	<10	10	0.11	<10	1.34	690	0.04	130	<2	6	47	0.16	<10	<10	62	<10				elevation 60 feet
79	2001	4	<10	10	0.17	<10	1.49	1095	0.2	430	<2	13	64	0.2	<10	<10	150	<10				
79	2002	3.83	<10	20	0.14	<10	1.17	700	0.15	500	<2	11	97	0.23	<10	<10	149	<10				
80	2003	6.26	<10	10	0.12	<10	1.59	690	0.16	580	<2	15	100	0.27	<10	<10	279	<10				
80	2007	4.1	10	50	0.07	<10	1.29	800	0.03	730	<2	10	127	0.21	<10	<10	123	<10				Elevation 5 feet
81	2004	3.7	<10	10	0.14	<10	1.25	625	0.16	460	<2	14	99	0.28	<10	<10	159	<10				
82	2005	3.68	10	80	0.1	<10	0.94	820	0.04	730	<2	8	76	0.17	<10	<10	119	<10				Elevation 10 feet
82	2006	3.09	<10	80	0.06	<10	0.77	600	0.04	780	<2	7	87	0.15	<10	<10	101	<10				Elevation 10 feet
83	2149	5.53	<10	1170	0.15	<10	1.74	545	<0.01	1400	<2	4	76	0.22	<10	<10	67	<10				
83	2204	2.24	<10	170	0.1	<10	0.69	650	<0.01	400	<2	3	642	0.15	<10	<10	29	<10			UW	Qz stringers in black pl, trace py
83	2205	2	<10	270	0.05	<10	0.72	415	0.01	430	<2	3	552	0.13	<10	<10	27	<10			UW	Qz stringers in black pl, no sulf
83	2206	2.36	<10	280	0.1	<10	0.77	555	<0.01	490	<2	3	462	0.17	<10	<10	32	<10			UW	Qz boudins, veinlets in black pl
83	2207	1.82	<10	190	0.09	<10	0.61	625	<0.01	370	<2	2	892	0.13	<10	<10	25	<10			UW	Qz veins/stringers in black pl
83	2208	2.49	<10	480	0.09	<10	0.82	435	<0.01	520	<2	2	462	0.15	<10	<10	33	<10			UW	Qz veins, masses in black pl
83	2209	1.19	<10	190	0.08	<10	0.35	380	<0.01	270	<2	1	1385	0.08	<10	<10	16	<10			UW	Qz stringers in black pl
84	2740	1.29	<10	10	<.01	<10	0.18	60	<.01	300	2	1	6	0.07	<10	<10	31	<10			RC	Qz material w/ 1-2% cp, 5-10% py
85	2565	3.4	10	10	0.09	50	0.1	410	0.06	110	<2	<1	13	0.01	<10	<10	1	<10			OC	Qz-filled shear zone w/ py/po
85	2739	4.99	<10	100	0.1	<10	0.06	120	0.04	120	<2	1	5	0.01	<10	<10	5	<10			OC	Qz veins and lenses, 2-5% py/po
86	2738	0.65	<10	10	0.01	<10	0.23	115	0.01	80	<2	1	13	0.02	<10	<10	8	<10			OC	Bull qz w/ carbonate lenses
87	2564	10.95	<10	20	0.03	<10	0.61	170	0.03	150	<2	2	8	0.01	<10	<10	31	<10			OC	Qz vein w/ cp <5%, py
88	2561	0.42	<10	<10	<.01	<10	0.05	20	<.01	90	<2	<1	4	0.01	<10	<10	6	<10			OC	Qz vein w/ sulf in gs
88	2562	0.33	<10	<10	<.01	<10	0.06	20	<.01	30	<2	<1	3	<.01	<10	<10	4	<10			OC	Qz vein
88	2563	1.89	<10	<10	0.03	<10	0.87	390	0.06	630	2	3	23	0.07	<10	<10	56	<10			OC	Qz br zone w/ py, fest
89	2737	2.54	<10	70	0.01	<10	0.11	50	0.02	280	<2	<1	4	0.04	<10	<10	7	<10			OC	Qz veins, trace cp, po to 2%, aspy?
90	2112	0.52	<10	10	0.02	<10	0.1	3180	<.01	110	4	1	248	0.03	<10	<10	3	<10			OC	Qz w/ minor py, trace cp
91	2043	0.81	<10	<10	0.04	<10	0.09	375	0.02	670	<2	<1	183	<.01	<10	<10	4	<10			OC	Qz vein w/ minor py
92	2042	3.85	<10	80	0.09	<10	0.96	1255	<.01	870	<2	4	67	0.2	<10	<10	46	<10				Elevation 10 feet
93	2045	2.43	<10	<10	0.06	<10	0.56	1230	0.01	220	<2	1	9	<.01	<10	<10	29	<10			OC	Qz veins in sil gs, arg, cp < 1%, py
93	2114	1.99	<10	<10	0.08	10	0.61	330	0.01	350	<2	2	22	0.01	<10	<10	23	<10			OC	Sil metavolc w/ py/po < 1%
93	2115	6.86	<10	<10	0.41	<10	1.53	680	0.02	1530	<2	5	65	0.47	<10	<10	57	<10			FL	Alt metavolc w/ 5% po, fest
94	2044	9.82	10	10	0.01	<10	2.53	1165	<.01	1320	<2	14	133	0.99	<10	<10	365	<10			FL	Mudstone, tuff, py/cp to 5% combined
94	2113	8.22	<10	20	0.02	<10	2.87	1020	<.01	270	<2	7	10	0.31	<10	<10	82	<10			FL	Alt metavolc w/ minor cp, py (?)
95	2568	3.89	<10	<10	0.22	<10	1.27	635	0.07	570	<2	4	34	0.2	<10	<10	86	<10				Sea level
95	2569	4.21	<10	<10	0.09	<10	1.38	685	0.09	730	<2	3	24	0.13	<10	<10	56	<10				Sea level
96	2596	1.38	<10	10	0.17	<10	0.23	105	0.04	200	<2	1	41	0.04	<10	<10	19	10			OC	Qz vein w/ trace cp + mo, py/po
96	2597	1.12	<10	10	0.1	<10	0.05	70	0.06	140	<2	<1	12	<0.01	<10	<10	2	10			OC	Fest qz w/ blebs and dissem po
96	2771	1.75	<10	10	0.17	<10	0.2	85	0.02	100	4	1	18	0.03	<10	<10	17	50			FL	Qz w/ aspy to 1%
97	2594	1.15	<10	10	0.17	<10	0.19	160	0.04	140	<2	1	14	0.02	<10	<10	11	<10			OC	Qz, mafic intrusive w/ blebs of py/po
97	2595	0.49	<10	10	0.11	<10	0.12	60	0.02	80	<2	<1	27	0.01	<10	<10	9	<10			OC	Qz vein w/ py
97	2769	0.75	<10	20	0.01	<10	0.01	15	<0.01	40	<2	<1	5	<0.01	<10	<10	1	<10			OC	Qz vein on shoreline, 1% py/aspy
97	2770	1.8	<10	130	0.15	<10	0.08	150	0.06	150	<2	1	8	0.01	<10	<10	2	<10			OC	Aplitic dike w/ <1% py
98	2008	1.36	<10	<10	0.06	<10	0.29	175	0.02	200	<2	<1	51	<.01	<10	<10	13	<10			OC	Qz vein w/ aspy to 1%
98	2009	2.17	<10	40	0.08	<10	0.72	380	0.05	430	<2	2	36	<.01	<10	<10	30	<10			OC	Qz vein & sheared gw, up to 1% aspy
98	2010	1.22	<10	10	0.01	<10	0.39	250	0.01	210	2	<1	58	<.01	<10	<10	13	<10			OC	Qz vein w/ aspy, sl; 8 veins sampled
99	2705	2.18	<10	170	0.06	<10	2.39	1230	<.01	510	<2	6	1755	<.01	<10	<10	39	<10			UW	Shear zone w/ qz veinlets, calc

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Al	As	Ba	Be	Bi	Ca	Cd	Cr
99	2706	Halleck Island	C	3.8	80	<.2	62	<2	74	<1	365	34	3.63	28	160	0.5	4	4.5	0.5	801
99	2707	Halleck Island	C	2.1	<5	<.2	30	4	62	<1	17	10	1.76	<2	280	<.5	2	2.09	<.5	35
99	2708	Halleck Island	C	5	295	<.2	41	2	66	<1	279	25	2.89	52	140	<.5	6	6.34	<.5	601
99	2709	Halleck Island	C	2.1	15	<.2	54	2	72	<1	399	36	3.45	16	110	0.5	4	4.13	<.5	881
100	2014	Magoun Island	Rep	0.2x3	40	0.6	1200	<2	18	20	4	1	0.06	<2	<10	<.5	4	0.01	<.5	314
101	2013	Magoun Island	Rep	0.25x3	55	1.5	1700	<2	6	71	4	<1	0.07	68	30	<.5	4	0.01	<.5	344
102	2012	Magoun Island	S	0.7x2	125	8	1.0 *	2	30	350	4	1	0.03	<2	20	<.5		<.01	0.5	342
103	2011	Magoun Island	Rep	0.7x2	25	<.2	390	8	6	800	4	<1	0.04	2	20	<.5	<2	0.02	<.5	338
104	2101	Magoun Island	Rep	0.1x50	20	0.3	315	4	18	<1	2	2	0.26	6	10	<.5	<2	0.09	<.5	170
104	2102	Magoun Island	Rep		<5	0.2	52	6	6	1	2	<1	0.27	2	<10	<.5	<2	0.03	<.5	154
105	2103	Magoun Island	Rep	0.1x25	70	1.5	1200	2	22	1	4	1	0.19	2	10	<.5	12	0.05	<.5	269
106	2507	Siginaka Island	Rep	0.6	<5	<.2	53	6	68	1	12	9	4	10	350	<.5	2	1.64	<.5	61
106	2508	Siginaka Island	Rep	1	<5	<.2	24	<2	74	<1	17	12	2.7	6	760	<.5	<2	0.53	<.5	69
106	2710	Siginaka Island	S		505	0.2	332	6	42	<1	73	14	0.68	34	80	<.5	2	0.88	<.5	115
107	2509	Siginaka Island	Rep	2	<5	<.2	70	<2	98	1	29	14	5.19	<2	590	<.5	4	1.89	<.5	87
108	2711	Siginaka Island	S		<5	<.2	59	<2	62	<1	53	25	1.88	8	50	<.5	4	1.06	<.5	112
109	2146	Harbor Mtn. Rd.	Rep	2	660	0.4	25	20	64	2	19	10	1.78	406	70	<0.5	<2	0.81	<0.5	79
110	2038	Warm Springs Bay	Rep	1x4	<5	<.2	290	<2	44	4	34	25	1.07	2	150	<.5	2	0.28	<.5	52
111	2111	Warm Springs Bay	S		<5	<.2	28	2	48	<1	5	2	0.9	<2	110	<.5	<2	0.28	<.5	88
112	2110	Warm Springs Bay	S		<5	<.2	76	4	84	<1	26	11	1.76	<2	210	<.5	<2	0.18	<.5	113
113	2109	Warm Springs Bay	G		<5	<.2	32	4	46	<1	16	5	1.39	2	100	<.5	<2	0.56	<.5	230
114	2041	Warm Springs Bay	S	1x2	<5	8.3	1150	5	9000	18	3	3	0.06	<2	<10	<.5	800	<.01	69	143
114	2581	Warm Springs Bay	Rep	0.2	<5	0.5	119	<1	530	1	3	2	0.15	2	10	<0.5	6	0.01	5.5	78
114	2584	Warm Springs Bay	S		<5	15	1350	5	2750	6	8	38	0.02	26	<10	<0.5	544	<0.01	20	42
114	2750	Warm Springs Bay	SS		<5	<0.2	45	3	100	12	7	3	1.58	2	40	<0.5	<2	0.68	<0.5	162
114	2751	Warm Springs Bay	G		<5	1	1750	<1	115	43	2	4	0.48	<2	60	<0.5	<2	0.07	0.5	136
114	2039	Warm Springs Bay	S		<5	0.7	198	4	74	54	4	2	0.89	<2	70	<.5	<2	0.32	0.5	171
115	2040	Warm Springs Bay	S	2	<5	<.2	43	2	26	<1	1	1	0.44	<2	20	<.5	<2	0.11	<.5	105
116	2582	Warm Springs Bay	Rep	2	<5	0.3	70	<1	260	<1	1	2	0.75	<2	60	<0.5	2	0.28	1	36
116	2583	Warm Springs Bay	SS		<5	<0.2	39	<1	88	3	3	2	1.43	2	20	<0.5	<2	0.61	<0.5	34
117	2752	Warm Springs Bay	G	2	135	3.5	590	4	5400	6	1	2	0.43	<2	40	<0.5	26	0.05	37	121
118	2585	Warm Springs Bay	Rep	0.1	170	49	255	50	56	24	<1	<1	0.21	<2	20	<0.5	52	0.06	<0.5	63
118	2753	Warm Springs Bay	G		<5	16	1350	3	7200	4	1	1	0.21	<2	20	<0.5	30	0.04	49	117
119	2586	Warm Springs Bay	G		<5	0.3	1300	<1	41	11	<1	<1	0.22	<2	20	<0.5	<2	0.01	<0.5	42
119	2587	Warm Springs Bay	G	0.5	<5	1.4	1900	<1	62	30	<1	2	0.19	<2	30	<0.5	<2	0.04	<0.5	44
120	2754	Warm Springs Bay	G	30x30	<5	1.5	1750	<1	140	550	2	2	1.07	<2	120	<0.5	<2	0.13	1	141
121	2756	Warm Springs Bay	G		<5	0.2	15	3	12	24	1	<1	0.39	<2	70	<0.5	<2	0.02	<0.5	140
122	2755	Warm Springs Bay	G		<5	<0.2	25	<1	17	195	3	<1	0.03	2	<10	<0.5	<2	<0.01	<0.5	272
123	2604	Warm Springs Bay	Rep	0.6	<5	<0.2	13	<2	32	<1	1	1	0.41	2	20	<0.5	<2	0.19	<0.5	66
123	2605	Warm Springs Bay	Rep	5	<5	<0.2	33	2	90	1	2	2	0.53	2	60	<0.5	2	0.17	<0.5	93
124	2579	Warm Springs Bay	G	0.5	<5	<0.2	38	<1	1100	1	1	1	0.36	2	60	<0.5	86	0.11	8.5	61
124	2580	Warm Springs Bay	G	0.6	<5	0.5	420	<1	800	7	1	2	0.48	<2	60	<0.5	2	0.13	5	55
125	2748	Warm Springs Bay	G	1.5	<5	<0.2	59	2	850	600	6	2	0.15	<2	20	<0.5	86	0.03	7.5	197
125	2749	Warm Springs Bay	G		<5	<0.2	13	<1	172	1650	2	2	0.09	<2	20	<0.5	2	0.02	1.5	154
126	2577	Warm Springs Bay	G	0.4	<5	<0.2	465	<1	93	54	2	4	1	<2	100	<0.5	<2	0.29	<0.5	46

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Fe	Ga	Hg	K	La	Mg	Mn	Na	P	Sb	Sc	Sr	Ti	Tl	U	V	W	Pt	Pd	Sam. Site	Sample Description
99	2706	4.46	<10	230	0.01	<10	6.23	875	<.01	600	20	15	243	<.01	<10	<10	111	<10			UW	Sheared mudstone, qz veinlets
99	2707	2.53	<10	470	0.15	<10	1.5	405	0.03	520	<2	2	99	<.01	<10	<10	33	<10			UW	Felsic dike, <1% dissem py
99	2708	3.77	<10	270	0.01	<10	5.99	1045	<.01	500	30	12	463	<.01	<10	<10	88	<10			UW	Shear zone w/ qz veinlets adj to dike
99	2709	4.24	<10	280	0.01	<10	6.66	875	<.01	580	<2	15	213	<.01	<10	<10	107	<10			UW	Sheared mudstone, qz, no sulf
100	2014	0.67	<10	<10	0.02	<10	0.02	20	0.01	20	<2	<1	3	<.01	<10	<10	2	<10			RC	Qz vein in gd, cp, ml, fest
101	2013	0.69	<10	<10	0.07	<10	0.02	30	0.01	50	<2	<1	6	<.01	<10	<10	3	<10			OC	Qz vein, cp, ml, mo to 3% locally
102	2012	1.74	<10	<10	0.02	<10	0.01	15	0.01	20	<2	<1	2	<.01	<10	<10	2	<10			OC	Qz vein, bt gd, cp + mo to 3% locally
103	2011	0.5	<10	10	0.03	<10	0.01	15	0.01	30	<2	<1	1	<.01	<10	<10	2	<10			RC	Qz vein, bt tonalite, mo to 2% locally, cp, ml
104	2101	0.56	<10	10	0.13	10	0.07	50	0.07	40	2	2	2	0.01	<10	<10	3	<10			OC	Qz vein in bt tonalite, cp to 1-2%
104	2102	0.43	<10	<10	0.17	<10	0.03	35	0.1	20	<2	2	2	<.01	<10	<10	1	<10			OC	Qz veins w/ mo <1%, cp < 1%, py
105	2103	0.81	<10	20	0.05	<10	0.12	40	0.01	80	<2	<1	2	0.01	<10	<10	7	20			OC	Qz vein in tonalite w/ cp, py
106	2507	3.3	<10	30	0.61	<10	1.31	440	0.34	560	<2	10	64	0.15	<10	<10	97	<10			OC	Fest gs w/ cp < 0.1%, py
106	2508	3.99	<10	10	1.62	<10	1.49	595	0.11	630	<2	12	42	0.29	<10	<10	140	<10			OC	Fest gs w/ cp < 0.1%, py
106	2710	4.25	<10	20	0.06	<10	0.37	3130	0.02	1340	<2	1	35	0.02	<10	<10	87	<10			OC	Sil gs w/ <1% po, trace cp
107	2509	4.13	10	<10	1.32	<10	1.47	330	0.62	1060	<2	15	95	0.17	<10	<10	167	<10			OC	Fest gs w/ py <1%
108	2711	3.66	<10	<10	0.11	<10	1.57	375	0.07	600	<2	3	19	0.36	<10	<10	107	<10			RC	Fg gs w/ <1% po, carbonate stringers
109	2146	3.04	<10	15490	0.18	<10	0.73	420	0.02	620	2	3	25	0.18	<10	<10	52	<10			OC	Fest fault gouge & silica boxworks in gw
110	2038	2.2	<10	<10	0.32	<10	0.65	120	0.07	650	<2	3	12	0.09	<10	<10	56	<10			OC	Alt tonalite, cp < 1%, py to 2%
111	2111	1.55	<10	<10	0.4	<10	0.47	240	0.12	450	<2	2	32	0.08	<10	<10	25	<10			RC	Porph dike w/ minor py, cp
112	2110	3.23	<10	<10	0.79	<10	0.97	290	0.02	730	<2	4	7	0.11	<10	<10	63	<10			OC	Bt-qz gneiss, py < 1%, trace cp, mo
113	2109	1.82	<10	<10	0.27	<10	0.53	225	0.07	1040	2	3	26	0.07	<10	<10	41	<10			OC	Qz in gneiss, minor py, trace cp
114	2041	3.32	<10	<10	0.03	<10	<.01	120	<.01	<10	<2	<1	<1	<.01	<10	<10	<1	<10			FL	Qz vein w/ sl, aspy, cp, py to 20%
114	2581	0.75	<10	<10	0.11	<10	0.02	20	<0.01	80	<2	<1	3	<0.01	<10	<10	4	<10			OC	Qz vein w/ py to 7% hosted in gw
114	2584	7.5	<10	<10	<0.01	<10	<0.01	20	<0.01	<10	<2	<1	<1	<0.01	<10	<10	<1	<10			FL	Qz w/ cp, sl, and py
114	2750	1.62	<10	130	0.14	<10	0.5	420	0.04	340	<2	1	72	0.1	<10	<10	29	<10				
114	2751	1.91	<10	300	0.16	<10	0.15	140	0.03	140	<2	<1	5	0.01	<10	<10	7	<10			FL	Sil tonalite, <1% cp, found near 2750
114	2039	1.71	<10	<10	0.3	<10	0.47	370	0.1	400	<2	1	30	0.07	<10	<10	20	<10			FL	Alt tonalite, py, cp to 2% combined
115	2040	1.22	<10	<10	0.09	<10	0.25	165	0.04	160	<2	1	7	0.04	<10	<10	7	<10			OC	Porph tonalite, gneiss, py to 3%
116	2582	1.59	<10	<10	0.28	<10	0.56	570	0.01	510	<2	2	10	0.1	<10	<10	25	<10			RC	Tonalite w/ dissem py
116	2583	1.38	<10	<10	0.1	<10	0.51	380	0.01	340	<2	1	62	0.09	<10	<10	24	<10				Elevation 140 feet
117	2752	2.27	<10	270	0.27	<10	0.04	55	<0.01	420	<2	<1	2	<0.01	<10	<10	3	30			OC	Sil tonalite w/ 1-2% sl, up to 5% py
118	2585	0.78	<10	<10	0.14	<10	0.03	40	<0.01	220	<2	<1	10	0.01	<10	<10	1	30			OC	Qz vein w/ cp, py <1%
118	2753	1.32	<10	120	0.18	<10	0.01	40	<0.01	250	<2	<1	1	<0.01	<10	<10	2	250			FL	Sil tonalite, 1-2% sl, 1% cp, 5-10% py
119	2586	2.18	<10	<10	0.11	<10	<0.01	5	<0.01	130	<2	<1	6	<0.01	<10	<10	<1	<10			OC	Tonalite w/ trace cp, py to 7%
119	2587	2.38	<10	<10	0.1	<10	<0.01	15	<0.01	280	<2	<1	2	<0.01	<10	<10	<1	<10			OC	Tonalite w/ dissem cp, py
120	2754	2.71	<10	20	0.34	<10	0.26	330	0.01	660	<2	<1	9	0.07	<10	<10	11	<10			FL	Sil bt tonalite boulders w/ 1% cp, py
121	2756	1.27	<10	30	0.19	<10	0.04	50	0.03	110	<2	<1	7	0.01	<10	<10	2	<10			RC	Aplite w/ py stringers in qz
122	2755	0.47	<10	<10	0.01	<10	<0.01	10	<0.01	10	<2	<1	<1	<0.01	<10	<10	1	<10			FL	Qz w/ <1% mo, on ridge top
123	2604	0.83	<10	60	0.17	<10	0.25	185	0.03	420	<2	<1	15	0.03	<10	<10	8	<10			OC	Sil tonalite w/ trace cp, py
123	2605	1.29	<10	30	0.27	<10	0.37	325	0.03	390	<2	1	14	0.06	<10	<10	15	<10			OC	Tonalite w/ trace cp, dissem py
124	2579	1.03	<10	<10	0.2	<10	0.35	310	0.01	310	<2	2	8	0.06	<10	<10	19	<10			RC	Tonalite w/ qz stringers, py to 5%
124	2580	1.32	<10	<10	0.24	<10	0.38	290	0.05	260	<2	2	15	0.07	<10	<10	22	<10			RC	Tonalite w/ sulf to 5%
125	2748	2.03	<10	100	0.11	<10	0.12	65	0.01	160	<2	<1	6	<0.01	<10	<10	4	<10			OC	Qz vein w/ sl, trace cp; up to 5% py
125	2749	4.29	<10	270	0.08	<10	0.02	20	0.01	30	<2	<1	7	<0.01	<10	<10	1	<10			OC	Qz vein w/ 1-2% mo, trace cp
126	2577	1.99	<10	<10	0.35	<10	0.58	345	0.02	500	<2	2	23	0.12	<10	<10	24	4			FL	Sil tonalite w/ mo, cp, py

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Al	As	Ba	Be	Bi	Ca	Cd	Cr
127	2746	Warm Springs Bay	G		<5	<0.2	285	<1	81	25	3	4	1.06	2	320	<0.5	<2	0.2	<0.5	140
127	2747	Warm Springs Bay	G		<5	<0.2	81	<1	62	2	3	4	0.87	2	20	<0.5	<2	0.27	<0.5	134
128	2745	Warm Springs Bay	G		<5	0.3	570	3	77	34	9	5	1.28	4	210	<0.5	<2	0.34	<0.5	177
129	2540	Warm Springs Bay	SC	10@1	<5	<.2	650	<1	86	33	4	3	0.83	<2	130	<.5	<2	0.17	<.5	121
129	2541	Warm Springs Bay	SC	10@1	<5	0.5	920	<1	115	480	4	3	0.97	<2	220	<.5	<2	0.22	<.5	113
129	2542	Warm Springs Bay	SC	10@1	<5	0.2	630	<1	85	53	3	4	0.87	<2	230	<.5	2	0.22	<.5	62
129	2543	Warm Springs Bay	SC	10@1	<5	<.2	590	<1	95	40	3	4	0.85	6	240	<.5	<2	0.15	<.5	65
129	2544	Warm Springs Bay	SC	10@2	<5	<.2	540	<1	98	53	2	3	0.9	2	230	<.5	<2	0.23	<.5	80
129	2545	Warm Springs Bay	CC	0.12	<5	5.4	6000	<1	56	415	4	4	0.04	<2	10	<.5	<2	0.02	0.5	234
129	2546	Warm Springs Bay	SC	10@2	<5	0.2	580	<1	85	50	2	3	0.84	<2	210	<.5	<2	0.19	<.5	81
129	2547	Warm Springs Bay	SC	12@2	<5	<.2	430	<1	72	32	4	4	0.82	2	170	<.5	<2	0.13	<.5	150
129	2548	Warm Springs Bay	SC	10@2	<5	0.5	965	<1	88	60	2	3	0.75	4	220	<.5	<2	0.13	0.5	119
129	2549	Warm Springs Bay	SC	10@2	<5	0.4	830	<1	87	13	4	3	0.86	<2	240	<.5	<2	0.16	<.5	143
129	2550	Warm Springs Bay	SC	10@2	<5	0.3	790	<1	116	38	2	3	0.82	<2	310	<.5	<2	0.12	<.5	56
129	2551	Warm Springs Bay	SC	10@2	<5	<.2	140	<1	88	1	2	2	0.91	<2	230	<.5	2	0.13	<.5	113
129	2552	Warm Springs Bay	SC	10@2	<5	<.2	140	<1	65	3	2	1	0.83	<2	200	<.5	<2	0.13	<.5	91
129	2553	Warm Springs Bay	SC	10@2	<5	<.2	118	<1	56	<1	1	1	0.81	<2	190	<.5	<2	0.14	<.5	78
129	2554	Warm Springs Bay	SC	10@2	<5	<.2	230	<1	58	21	2	2	0.82	<2	180	<.5	2	0.18	<.5	101
129	2555	Warm Springs Bay	SS		<5	<.2	37	5	17	2	1	<1	0.38	2	20	<.5	<2	0.09	<.5	4
129	2556	Warm Springs Bay	G	0.5	<5	0.6	1600	<1	115	785	3	2	0.91	<2	190	<.5	<2	0.58	0.5	84
129	2557	Warm Springs Bay	SS		<5	<.2	70	6	23	24	1	<1	0.98	<2	30	<.5	<2	0.15	<.5	2
129	2558	Warm Springs Bay	SS		<5	<.2	146	1	80	3	3	3	2	2	10	<.5	<2	1.03	<.5	6
129	2559	Warm Springs Bay	SS		<5	<.2	59	2	50	2	2	3	0.84	<2	20	<.5	2	0.27	<.5	4
129	2560	Warm Springs Bay	SS		<5	<.2	26	4	42	5	3	1	0.75	<2	30	<.5	<2	0.19	<.5	6
129	2578	Warm Springs Bay	G	0.5	<5	3.5	4900	<1	148	95	1	3	0.32	<2	30	<0.5	<2	0.08	2	67
129	2718	Warm Springs Bay	SC	10@1	<5	0.6	1550	<1	88	600	6	5	0.8	<2	250	<.5	<2	0.17	<.5	105
129	2719	Warm Springs Bay	SC	10@1	<5	<.2	510	<1	101	57	10	4	0.95	2	290	<.5	<2	0.16	<.5	138
129	2720	Warm Springs Bay	SC	10@1	<5	0.6	1300	<1	117	186	4	4	0.99	<2	310	<.5	<2	0.44	0.5	108
129	2721	Warm Springs Bay	SC	10@1	<5	0.5	1150	<1	119	187	4	5	1.21	<2	360	<.5	<2	0.31	<.5	173
129	2722	Warm Springs Bay	SC	10@1	<5	0.3	930	<1	130	6	6	7	1.39	<2	380	<.5	<2	0.32	0.5	151
129	2723	Warm Springs Bay	SC	10@1	<5	0.2	640	<1	117	13	3	3	0.97	<2	270	<.5	<2	0.21	<.5	159
129	2724	Warm Springs Bay	SC	10@1	<5	<.2	495	<1	80	32	3	3	0.86	<2	190	<.5	<2	0.16	<.5	150
129	2725	Warm Springs Bay	S	1.5	<5	4	5300	<1	92	925	3	3	0.35	<2	80	<.5	<2	0.13	0.5	262
129	2726	Warm Springs Bay	SC	10@1	<5	<.2	290	<1	62	11	2	2	0.82	2	190	<.5	<2	0.14	<.5	124
129	2727	Warm Springs Bay	SC	10@1	<5	<.2	265	<1	66	13	2	3	0.87	<2	200	<.5	<2	0.15	<.5	152
129	2728	Warm Springs Bay	SC	10@1	<5	<.2	1200	<1	40	352	1	4	0.75	<2	180	<.5	2	0.23	<.5	155
129	2729	Warm Springs Bay	SC	10@1	<5	<.2	310	<1	55	5	2	2	0.84	<2	190	<.5	2	0.18	<.5	113
129	2730	Warm Springs Bay	SC	10@1	<5	0.2	440	<1	60	10	2	2	0.85	<2	140	<.5	<2	0.21	<.5	109
129	2731	Warm Springs Bay	SC	10@1	<5	<.2	210	<1	61	15	1	2	0.85	<2	160	<.5	<2	0.22	<.5	134
129	2732	Warm Springs Bay	SC	10@1	<5	0.3	820	<1	60	123	2	5	0.89	<2	170	<.5	<2	0.24	<.5	136
129	2733	Warm Springs Bay	S	0.7	<5	5.2	6600	<1	175	240	2	8	0.63	<2	100	<.5	<2	0.07	1	127
130	2736	Warm Springs Bay	SS		<5	<.2	34	5	55	3	3	3	0.94	4	30	<.5	2	0.29	<.5	6
131	2735	Warm Springs Bay	RC	10x50	<5	0.4	465	<1	90	30	2	3	0.87	<2	150	<.5	<2	0.24	<.5	142
132	2734	Warm Springs Bay	SS		<5	<.2	29	4	83	7	3	1	1.32	<2	60	<.5	6	0.15	<.5	10
133	2576	Blue Lake	G	0.4	65	2.8	1950	8	16	7	85	11	0.02	<2	<10	<0.5	2	<0.01	<0.5	88

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Fe	Ga	Hg	K	La	Mg	Mn	Na	P	Sb	Sc	Sr	Ti	Tl	U	V	W	Pt	Pd	Sam. Site	Sample Description
127	2746	2.09	<10	70	0.54	<10	0.56	365	0.06	470	<2	3	18	0.12	<10	<10	35	3			FL	Di w/ mafic br fragments, trace cp, py
127	2747	1.67	<10	90	0.07	<10	0.51	365	0.04	320	<2	2	20	0.06	<10	<10	18	<2			OC	Di w/ trace cp, 2-3% py
128	2745	2.49	<10	420	0.42	<10	0.66	285	0.07	390	<2	3	22	0.14	<10	<10	39	4			FL	Di w/ trace cp, 2-5% py
129	2540	1.81	<10	<10	0.34	<10	0.51	290	0.05	410	<2	3	11	0.09	<10	<10	26	<10	<5	<2	OC	Tonalite w/ cp <1%, po
129	2541	1.99	<10	<10	0.52	<10	0.55	310	0.07	320	<2	3	19	0.11	<10	<10	30	<10			OC	Tonalite w/ cp <1%, po
129	2542	1.88	<10	<10	0.48	<10	0.48	270	0.04	510	<2	3	12	0.1	<10	<10	28	<10			OC	Tonalite w/ cp <1%, po
129	2543	1.85	<10	<10	0.47	<10	0.49	275	0.04	480	<2	3	8	0.1	<10	<10	27	<10			OC	Tonalite w/ cp <1%, po
129	2544	1.84	<10	<10	0.55	<10	0.51	275	0.05	850	<2	3	14	0.11	<10	<10	28	<10			OC	Tonalite w/ cp <1%, po
129	2545	1.09	<10	<10	0.02	<10	<.01	10	0.01	70	4	<1	4	<.01	<10	<10	1	<10			OC	Qz vein w/ cp blebs to 5%
129	2546	1.65	<10	<10	0.5	<10	0.44	255	0.06	570	6	2	14	0.1	<10	<10	24	<10			OC	Tonalite w/ cp <1%, po
129	2547	1.73	<10	<10	0.49	<10	0.4	230	0.07	350	<2	2	10	0.09	<10	<10	23	<10			OC	Tonalite w/ cp <1%, po
129	2548	1.74	<10	<10	0.45	<10	0.4	210	0.06	400	4	2	16	0.08	<10	<10	22	<10			OC	Tonalite w/ cp <1%, po
129	2549	1.82	<10	<10	0.49	<10	0.47	245	0.07	440	<2	3	16	0.1	<10	<10	25	<10			OC	Tonalite w/ cp <1%
129	2550	1.8	<10	<10	0.54	<10	0.51	220	0.03	380	<2	3	10	0.12	<10	<10	28	<10			OC	Tonalite w/ cp <1%, po
129	2551	1.64	<10	<10	0.58	<10	0.48	295	0.06	370	<2	3	12	0.1	<10	<10	22	<2			OC	Tonalite w/ cp <1%, po
129	2552	1.48	<10	<10	0.54	<10	0.44	265	0.06	370	<2	3	17	0.09	<10	<10	19	<2			OC	Tonalite w/ cp <1%, po
129	2553	1.46	<10	<10	0.52	<10	0.44	255	0.04	400	<2	3	10	0.1	<10	<10	21	<2			OC	Tonalite w/ cp <1%, po
129	2554	1.53	<10	<10	0.47	<10	0.45	250	0.06	340	<2	2	17	0.09	<10	<10	19	<2			OC	Tonalite w/ cp <1%, po
129	2555	1.13	<10	30	0.08	<10	0.2	110	0.02	410	<2	1	13	0.04	<10	<10	24	<2				Sea level
129	2556	1.85	<10	10	0.53	<10	0.54	325	0.06	2330	<2	3	23	0.1	<10	<10	33	<2			RC	Tonalite w/ blebs of cp, mo, sil
129	2557	0.97	<10	60	0.07	<10	0.28	135	0.01	280	<2	1	14	0.06	<10	<10	15	<10				Elevation 10 feet
129	2558	1.54	<10	10	0.07	<10	0.6	435	0.01	460	<2	3	77	0.09	<10	<10	25	<10				Elevation 5 feet
129	2559	1.2	<10	<10	0.09	<10	0.4	385	0.02	220	<2	1	22	0.08	<10	<10	19	<10				Sea level
129	2560	1.14	<10	30	0.11	<10	0.37	220	0.05	220	<2	1	22	0.07	<10	<10	22	<10				
129	2578	1.83	<10	<10	0.18	<10	0.15	110	0.02	100	<2	<1	8	0.02	<10	<10	6	4			FL	Tonalite w/ dissem cp, py on sil zones
129	2718	2	<10	<10	0.5	<10	0.45	255	0.05	610	<2	2	13	0.09	<10	<10	26	<10			OC	Tonalite, cp <1%, qz veinlets
129	2719	1.95	<10	10	0.6	<10	0.61	320	0.06	530	<2	3	12	0.12	<10	<10	30	<10			OC	Tonalite, cp <1%, qz veinlets
129	2720	2.13	<10	<10	0.67	<10	0.54	355	0.06	1340	<2	3	30	0.13	<10	<10	29	<10			OC	Tonalite, cp <1%, trace mo, qz veinlets
129	2721	2.19	<10	<10	0.69	<10	0.62	380	0.12	940	<2	3	29	0.13	<10	<10	36	<10			OC	Tonalite, cp + mo <1%, qz veinlets
129	2722	2.68	<10	<10	0.84	<10	0.74	395	0.11	920	6	4	34	0.16	<10	<10	45	<10			OC	Br tonalite, cp to 5% locally, 1% po
129	2723	1.79	<10	<10	0.5	<10	0.5	275	0.11	460	<2	3	23	0.1	<10	<10	28	<10			OC	Tonalite, br locally, cp <1%, 1% po
129	2724	1.72	<10	10	0.46	<10	0.42	230	0.08	410	<2	2	15	0.08	<10	<10	21	<10			OC	Tonalite, <1% cp, po to 1%
129	2725	1.23	<10	<10	0.19	<10	0.07	65	0.01	640	<2	<1	6	0.01	<10	<10	4	<10			OC	High-grade qz veinlet w/ cp, mo, po
129	2726	1.72	<10	<10	0.46	<10	0.39	230	0.06	380	<2	2	13	0.08	<10	<10	17	<10			OC	Tonalite, <1% cp, py on fractures
129	2727	1.65	<10	10	0.49	<10	0.45	250	0.07	440	<2	2	13	0.08	<10	<10	18	<10			OC	Tonalite, <1% cp, py on fractures
129	2728	1.71	<10	<10	0.47	<10	0.3	185	0.04	920	<2	1	18	0.06	<10	<10	17	<10			RC	Tonalite, <1% cp, py in fractures
129	2729	1.48	<10	<10	0.46	<10	0.38	215	0.08	360	<2	2	16	0.07	<10	<10	17	<10			OC	Tonalite cut by fractures, cp <1%, py
129	2730	1.7	<10	<10	0.38	<10	0.41	245	0.07	460	2	2	16	0.07	<10	<10	18	<10			OC	Tonalite, cp <1%, more in fractures
129	2731	1.66	<10	10	0.4	<10	0.43	255	0.07	400	<2	2	19	0.08	<10	<10	18	<10			OC	Tonalite, cp, py to 1%
129	2732	1.73	<10	<10	0.42	<10	0.33	215	0.07	520	<2	2	23	0.05	<10	<10	16	<10			OC	Tonalite cut by sulf-filled fractures, cp
129	2733	2.19	<10	<10	0.33	<10	0.19	105	0.04	250	<2	1	9	0.03	<10	<10	13	<10			OC	Tonalite w/ sulf veinlets; <5% cp, py
130	2736	1.73	<10	20	0.18	<10	0.47	370	0.24	540	<2	1	49	0.09	<10	10	32	<10				Sea level
131	2735	1.96	<10	<10	0.5	<10	0.48	325	0.08	560	<2	3	23	0.1	<10	<10	30	<10			OC	Tonalite, qz veinlets w/ cp, trace mo, py
132	2734	1.77	<10	40	0.4	<10	0.67	400	0.12	750	<2	3	24	0.13	<10	<10	37	<10				Sea level
133	2576	5.24	<10	<10	<0.01	<10	<0.01	40	<0.01	50	<2	<1	<1	<0.01	<10	<10	3	3			FL	Sil gs w/ qz stringers, cp to 2%, py

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Al	As	Ba	Be	Bi	Ca	Cd	Cr
134	2570	Gangola	C	1.5	80	<0.2	375	<1	28	1	8	26	3.77	8	<10	0.5	38	4.1	<0.5	71
134	2571	Gangola	Rep	0.4	<5	<0.2	285	<1	21	<1	4	20	1.3	<2	<10	0.5	<2	3.25	<0.5	53
134	2572	Gangola	G		570	0.9	960	<1	18	<1	8	63	1.54	2	<10	0.5	60	1.85	1	34
134	2573	Gangola	S		85	<0.2	260	<1	42	<1	7	19	2.19	2	<10	<0.5	12	2.05	<0.5	76
134	2574	Gangola	C	1	140	<0.2	49	<1	5	<1	2	3	0.22	<2	<10	<0.5	86	0.08	<0.5	127
134	2575	Gangola	C	0.9	450	0.4	169	<1	12	<1	4	11	0.38	<2	<10	<0.5	82	0.05	<0.5	100
134	2744	Gangola	G		65	<0.2	98	14	23	2	4	3	0.19	4	<10	<0.5	18	0.07	<0.5	298
135	2091	Green Lake Rd.	S	0.5	<5	<0.2	36	4	48	1	26	8	1.18	2	20	<0.5	2	2.16	<0.5	192
136	2016	Apex area	Rep	2x7	10	<.2	17	<2	24	1	9	2	0.58	4	40	<.5	<2	0.09	<.5	341
136	2015	Apex area	C	3.3	<5	<.2	12	<2	<2	1	3	<1	0.04	8	<10	<.5	<2	0.01	<.5	179
136	2017	Apex area	S		<5	1	920	18	78	1	10	3	1.05	6	80	<.5	<2	0.27	0.5	316
136	2018	Apex area	C	1.7	<5	0.2	270	17	59	1	12	6	0.92	44	80	<.5	<2	0.2	<.5	222
136	2106	Apex area	S		<5	<.2	14	6	42	<1	12	3	0.46	26	10	<.5	<2	0.09	<.5	269
136	2107	Apex area	C	0.25	40	<.2	18	4	28	1	8	3	0.35	90	30	<.5	<2	1.87	<.5	345
137	2104	Liberty	S		30	<.2	84	6	46	<1	7	2	0.42	28	20	<.5	<2	2.15	<.5	362
137	2105	Liberty	C	1.4	<5	<.2	12	2	42	<1	6	2	0.86	8	10	<.5	<2	0.15	<.5	182
137	2235	Liberty	C	3	<5	<0.2	35	4	84	<1	7	3	0.59	106	10	<0.5	<2	2.18	<0.5	147
137	2236	Liberty	C	3	60	<0.2	6	8	32	<1	5	2	0.79	398	<10	<0.5	<2	2.86	<0.5	98
137	2237	Liberty	Rep	2	50	<0.2	21	14	58	<1	12	8	1.14	100	20	<0.5	2	3.6	<0.5	136
137	2238	Liberty	C	1	20	0.4	99	96	100	<1	11	8	1.09	146	20	<0.5	2	3.82	0.5	143
138	2161	Edgecumbe Exploration	C	0.7	1170	0.6	9	130	212	<1	9	2	0.41	918	30	<0.5	<2	1.2	<0.5	184
138	2162	Edgecumbe Exploration	S		1810	0.6	<1	16	26	1	10	9	0.08	>10000	20	<0.5	<2	0.11	<0.5	144
138	2239	Edgecumbe Exploration	C	2.1	50	<0.2	4	42	30	<1	6	2	0.19	880	10	<0.5	<2	0.89	<0.5	222
138	2240	Edgecumbe Exploration	C	5	70	<0.2	<1	48	30	1	4	1	0.06	2200	<10	<0.5	<2	0.28	<0.5	223
138	2241	Edgecumbe Exploration	C	0.75	160	<0.2	14	8	54	1	27	14	1.63	>10000	70	<0.5	4	2.19	<0.5	56
138	2242	Edgecumbe Exploration	C	4	20	<0.2	<1	14	54	<1	3	<1	0.05	262	<10	<0.5	<2	0.12	<0.5	226
139	2163	Eureka	G		<5	<0.2	3	4	20	<1	7	3	1.8	36	20	<0.5	<2	1.71	<0.5	139
139	2243	Eureka	Rep		30	<0.2	2	2	8	<1	5	2	0.21	34	10	<0.5	<2	0.02	<0.5	201
139	2244	Eureka	Rep		<5	<0.2	17	2	32	<1	7	2	0.3	38	10	<0.5	<2	0.08	<0.5	212
139	2245	Eureka	C	0.25	27.5 *	3.2	9	16	38	<1	11	4	0.56	4060	30	<0.5	<2	8.63	<0.5	133
140	2510	Lower Ledge	C	2	<5	<.2	30	8	96	<1	26	13	2.21	12	100	<.5	<2	0.62	0.5	53
140	2511	Lower Ledge	C	1	<5	<.2	46	16	112	<1	29	17	2.42	18	70	<.5	2	1.7	<.5	38
140	2512	Lower Ledge	C	1.7	<5	<.2	35	6	98	<1	25	11	2.39	14	120	<.5	2	1	<.5	30
140	2513	Lower Ledge	C	1.8	<5	<.2	39	8	82	<1	16	12	2.09	6	80	<.5	2	3.33	0.5	30
140	2514	Lower Ledge	G		<5	<.2	4	6	8	<1	3	1	0.1	306	10	<.5	<2	0.09	<.5	196
140	2515	Lower Ledge	Rep	2.5x3.7	<5	<.2	6	2	2	<1	2	2	0.07	452	10	<.5	<2	0.03	<.5	174
140	2516	Lower Ledge	Rep	15	<5	<.2	2	<2	2	<1	3	<1	0.04	190	<10	<.5	<2	0.01	<.5	273
140	2517	Lower Ledge	Rep	24	30	<.2	4	2	4	<1	4	1	0.11	692	10	<.5	<2	0.04	<.5	190
140	2518	Lower Ledge	S		2350	0.4	7	74	144	<1	5	2	0.28	1490	30	<.5	<2	0.1	1	189
141	2092	Stewart, Adit #1	C	4	<5	<0.2	2	<2	4	<1	6	1	0.1	258	10	<0.5	<2	0.01	<0.5	437
141	2093	Stewart, Adit #1	C	4.5	25	<0.2	4	10	56	<1	8	3	0.43	1555	40	<0.5	<2	0.45	<0.5	272
141	2094	Stewart, Adit #1	C	4	240	0.2	4	14	170	1	6	1	0.09	284	10	<0.5	<2	0.09	1	466
141	2095	Stewart, Adit #1	C	5.5	15	<0.2	2	4	22	<1	3	1	0.08	172	<10	<0.5	<2	0.42	<0.5	304
141	2096	Stewart, Adit #1	C	7	20	<0.2	2	<2	22	1	4	<1	0.01	22	<10	<0.5	<2	0.01	<0.5	396
141	2097	Stewart, Adit #1	C	5	<5	<0.2	1	<2	2	<1	3	<1	0.01	10	<10	<0.5	<2	0.32	<0.5	324

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Map No.	Sam. No.	Fe	Ga	Hg	K	La	Mg	Mn	Na	P	Sb	Sc	Sr	Ti	Tl	U	V	W	Pt	Pd	Sam. Site	Sample Description
134	2570	3.41	<10	<10	<0.01	<10	0.69	230	<0.01	150	<2	6	7	0.04	<10	<10	67	380			TP	Qz zone w/ py/po, aspy
134	2571	1.68	<10	10	0.06	<10	0.12	195	0.03	460	<2	1	113	0.07	<10	<10	18	1010			TP	Sil wall rock w/ po
134	2572	3.46	<10	<10	0.01	<10	0.16	125	0.07	670	<2	3	89	0.08	<10	<10	33	1100			TP	Fest gs w/ sulf
134	2573	3.52	<10	<10	0.04	<10	1.43	440	<0.01	30	<2	7	12	0.08	<10	<10	100	760			MD	Qz w/ py, aspy, fest
134	2574	0.8	<10	10	<0.01	<10	0.1	35	<0.01	10	<2	<1	<1	<0.01	<10	<10	12	50			OC	Qz vein w/ po
134	2575	1.28	<10	<10	0.02	<10	0.21	80	<0.01	20	<2	1	1	0.01	<10	<10	21	6			OC	Qz vein w/ sulf
134	2744	0.94	<10	<10	0.01	<10	0.11	35	<0.01	10	<2	<1	<1	0.01	<10	<10	14	180			OC	Qz vein w/ fest
135	2091	2.09	<10	120	0.07	<10	0.9	405	<0.01	340	<2	1	45	0.15	<10	<10	33	<10			OC	Qz vein in slate, py < 1%
136	2016	1.27	<10	<10	0.09	<10	0.29	105	0.02	130	2	1	9	0.04	<10	<10	16	<10			OC	Qz vein in fault, parallel to vein in 2015
136	2015	0.24	<10	10	<.01	<10	0.02	15	<.01	20	4	<1	1	<.01	<10	<10	1	<10			OC	Qz vein in gw, barren
136	2017	2.03	<10	30	0.17	<10	0.52	205	0.01	260	2	2	11	0.12	<10	<10	30	<10			FL	Qz vein br, cp, trace sl (?), aspy
136	2018	2.04	<10	170	0.2	<10	0.45	195	<.01	320	<2	1	12	0.09	<10	<10	23	<10			OC	Qz vein br, aspy, minor cp
136	2106	1.2	<10	<10	0.05	<10	0.25	95	0.01	130	<2	<1	9	0.02	<10	<10	12	<10			FL	Qz w/ minor po, gw clasts
136	2107	0.95	<10	<10	0.08	<10	0.1	260	<.01	70	<2	<1	154	0.01	<10	<10	7	<10			OC	Qz vein and sil gw br, fest
137	2104	1.17	<10	10	0.06	<10	0.18	235	0.01	110	6	<1	151	0.01	<10	<10	10	<10			MD	Qz and qz br, py/po
137	2105	1.67	<10	10	0.04	<10	0.47	190	<.01	220	<2	<1	10	<.01	<10	<10	14	<10			OC	Qz vein in slate, fest, no sulf
137	2235	1.22	<10	2040	0.04	<10	0.3	285	<0.01	150	<2	<1	177	<0.01	<10	<10	11	<10			UW	Qz vein, minor pl, py clots to 2 cm
137	2236	1.59	<10	2370	0.02	<10	0.43	480	<0.01	230	<2	1	221	<0.01	<10	<10	12	<10			UW	Qz vein beyond raise, py to 2%
137	2237	2.11	<10	700	0.06	<10	0.62	540	0.01	430	<2	1	199	0.01	<10	<10	22	<10			UW	Qz veins near xcut, py to 2% locally
137	2238	2.27	<10	790	0.08	<10	0.56	565	<0.01	310	<2	1	278	0.01	<10	<10	17	<10			UW	Qz pods, lenses, no sulf
138	2161	1.15	<10	170	0.11	<10	0.28	175	<0.01	460	2	<1	44	<0.01	<10	<10	15	<10			UW	Ribbon qz w/ py <1%
138	2162	3.07	<10	260	0.02	<10	0.03	45	<0.01	20	16	<1	56	<0.01	<10	<10	4	<10			UW	Qz w/ knots of py and aspy to 5%
138	2239	0.69	<10	120	0.02	<10	0.12	90	<0.01	520	<2	<1	61	<0.01	<10	<10	7	<10			UW	Qz vein near winze, py to 3% locally
138	2240	0.54	<10	110	0.02	<10	0.02	40	<0.01	<10	2	<1	19	<0.01	<10	<10	2	<10			UW	Qz vein past winze, py/aspy locally
138	2241	4.11	<10	70	0.2	<10	1.35	540	0.01	430	<2	2	153	0.04	<10	<10	33	<10			OC	Qz veinlet in gw, py to 5%, near creek
138	2242	0.34	<10	20	<0.01	<10	0.03	20	<0.01	360	<2	<1	12	<0.01	<10	<10	2	<10			OC	Qz vein adj to raise; py, aspy to 1%
139	2163	1.08	<10	80	0.06	<10	0.38	155	0.01	160	<2	1	12	0.06	<10	<10	36	<10			OC	Fest qz stringers in gw
139	2243	0.53	<10	<10	0.02	<10	0.09	185	<0.01	10	<2	<1	2	<0.01	<10	<10	3	<10			FL	Qz material in creek
139	2244	0.93	<10	20	0.05	<10	0.15	50	0.01	120	<2	<1	6	0.03	<10	<10	8	<10			FL	Qz w/ gw partings; py/aspy to 2%
139	2245	1.49	<10	460	0.09	<10	0.33	585	<0.01	200	<2	1	944	<0.01	<10	<10	9	<10			UW	Qz veinlets in slate, no sulf
140	2510	3.9	<10	10	0.19	<10	1.41	555	0.01	720	<2	2	23	0.19	<10	<10	43	<10			UW	Sheared gw w/ fest
140	2511	4.27	<10	20	0.15	<10	1.53	645	<.01	820	<2	2	129	0.23	<10	<10	37	<10			UW	Sheared gw w/ calc stringers
140	2512	4.35	<10	2320	0.26	<10	1.26	665	<.01	830	<2	3	40	0.27	<10	<10	33	<10			UW	Sheared gw
140	2513	3.68	<10	450	0.17	<10	1.16	650	<.01	580	2	2	245	0.23	<10	<10	27	<10			UW	Sheared gw w/ qz lens
140	2514	0.36	<10	50	0.02	<10	0.04	30	<.01	60	<2	<1	7	<.01	<10	<10	2	<10			FL	Qz w/ aspy, py; chl ribbon texture
140	2515	0.34	<10	10	0.01	<10	0.02	80	<.01	10	<2	<1	4	<.01	<10	<10	2	<10			RC	Qz w/ aspy, py and limonite
140	2516	0.31	<10	<10	0.01	<10	0.02	15	<.01	20	<2	<1	1	<.01	<10	<10	2	<10			MD	Qz w/ aspy, py
140	2517	0.59	<10	<10	0.02	<10	0.07	35	<.01	30	2	<1	3	<.01	<10	<10	3	<10			MD	Qz w/ aspy, py
140	2518	0.79	<10	10	0.06	<10	0.16	40	<.01	320	<2	<1	11	<.01	<10	<10	5	<10			FL	Qz w/ aspy, py and trace gn
141	2092	0.5	<10	20	0.03	<10	0.02	30	<0.01	<10	<2	<1	2	<0.01	<10	<10	3	<10			UW	Qz w/ slate/gw partings, py
141	2093	1.03	<10	30	0.1	<10	0.23	135	0.01	140	<2	<1	35	<0.01	<10	<10	10	<10			UW	Qz vein w/ pyritic black slate/gw
141	2094	0.66	<10	30	0.03	<10	0.02	35	<0.01	40	<2	<1	8	<0.01	<10	<10	3	<10			UW	Qz vein w/ slate/gw partings
141	2095	0.42	<10	190	0.01	<10	0.04	55	<0.01	420	<2	<1	34	<0.01	<10	<10	2	<10			UW	Qz, minor partings on hw
141	2096	0.37	<10	380	<0.01	<10	<0.01	15	<0.01	<10	<2	<1	2	<0.01	<10	<10	1	<10			UW	Qz vein, py <1%
141	2097	0.3	<10	60	<0.01	<10	0.01	40	<0.01	<10	<2	<1	55	<0.01	<10	<10	1	<10			UW	Qz vein, minor fault gouge

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Al	As	Ba	Be	Bi	Ca	Cd	Cr
141	2098	Stewart, Adit #2	C	4	370	0.2	6	22	32	1	8	1	0.18	214	20	<0.5	<2	0.03	<0.5	432
141	2099	Stewart, Adit #2	S	0.3	65	<0.2	7	2	28	<1	8	3	0.32	218	30	<0.5	<2	0.02	<0.5	214
141	2100	Stewart, Adit #2	C	5.5	150	0.2	2	2	20	1	6	1	0.06	958	10	<0.5	<2	0.16	<0.5	374
141	2147	Stewart, Adit #3	C	5	360	0.2	23	12	46	<1	14	5	0.88	706	60	<0.5	<2	1.64	<0.5	161
141	2148	Stewart	Rep	2.5x4	265	<0.2	3	2	4	<1	4	1	0.24	78	10	<0.5	<2	0.03	<0.5	185
141	2164	Stewart	S		9640	4.2	310	115	175	1	15	11	0.13	1185	30	<0.5	<2	0.01	0.5	156
141	2201	Stewart, Adit #2	C	5	2780	<0.2	2	2	44	<1	4	<1	0.03	566	<10	<0.5	<2	0.16	<0.5	263
141	2202	Stewart, Adit #3	Rep	3x5	3130	0.2	2	10	16	<1	6	1	0.07	316	10	<0.5	<2	0.01	<0.5	423
141	2203	Stewart, Adit #3	C	5	150	<0.2	32	6	82	<1	17	7	1.09	498	80	<0.5	2	1.34	0.5	159
141	2221	Stewart	Rep		**12.6** *	4.9	29	200	42	1	7	2	0.17	9680	10	<0.5	4	0.04	<0.5	214
141	2222	Stewart	S		**57.9** *	25.6	215	2000	25	4	13	4	0.07	>10000	20	<0.5	20	0.04	<0.5	105
142	2223	Unknown Prosp.	C	3.5	60	<0.2	9	6	18	<1	8	2	0.39	632	20	<0.5	<2	0.68	<0.5	303
142	2224	Unknown Prosp.	Rep	6	30	<0.2	10	8	34	<1	7	1	0.13	356	10	<0.5	<2	1.1	0.5	293
142	2225	Unknown Prosp.	C	4	40	<0.2	76	8	78	2	65	7	0.26	408	<10	<0.5	<2	7.01	<0.5	113
142	2226	Unknown Prosp.	Rep		<5	0.2	127	4	54	1	32	8	0.71	222	170	<0.5	2	4.99	<0.5	98
142	2227	Unknown Prosp.	C	2.5	<5	<0.2	4	2	6	<1	6	1	0.2	184	10	<0.5	<2	0.03	<0.5	327
143	2214	Bauer	C	1.5	280	<0.2	24	14	62	<1	15	7	1.17	716	100	<0.5	2	9.16	<0.5	101
143	2215	Bauer	Rep	0.5x2	35	<0.2	52	8	28	70	20	6	0.22	344	<10	<0.5	<2	2.85	<0.5	150
144	2220	Pinta Lake	Rep	2	5	<0.2	3	6	6	<1	4	1	0.15	138	10	<0.5	<2	0.01	<0.5	231
145	2219	Pinta Lake	C	6	45	<0.2	9	24	26	<1	6	1	0.11	300	<10	<0.5	<2	0.03	<0.5	280
146	2218	Pinta Lake	Rep	2.5	205	0.4	4	68	2	<1	5	1	0.11	2550	10	<0.5	<2	<0.01	<0.5	231
147	2154	Free Gold	C	2	<5	<0.2	1	<2	<2	<1	4	<1	0.02	34	<10	<0.5	<2	0.03	<0.5	243
147	2155	Free Gold	S		<5	<0.2	6	16	4	<1	6	1	0.09	484	<10	<0.5	<2	0.18	<0.5	194
147	2156	Free Gold	C	2.8	<5	0.2	12	12	34	<1	67	11	1.22	256	10	<0.5	<2	1.75	<0.5	208
148	2153	Lucky Chance Mtn	S		1180	<0.2	1	<2	2	<1	4	1	0.07	480	10	<0.5	<2	<0.01	<0.5	210
149	2151	Lucky Chance Mtn	C	2	275	<0.2	53	6	94	<1	23	14	2.93	2190	90	<0.5	<2	1.96	<0.5	72
149	2152	Lucky Chance Mtn	Rep	0.3	75	<0.2	2	<2	4	<1	4	1	0.17	970	20	<0.5	<2	0.18	<0.5	170
150	2210	Lucky Chance	S		**19.3** *	3.6	1	78	6	<1	4	1	0.08	1270	<10	<0.5	<2	0.06	<0.5	291
150	2211	Lucky Chance	S		300	<0.2	1	10	16	<1	3	1	0.12	906	10	<0.5	<2	1.49	<0.5	194
150	2212	Lucky Chance	S		**16.9** *	1.8	5	54	32	3	6	2	0.21	2430	20	<0.5	<2	1.04	1.5	247
150	2213	Lucky Chance	S		**26.5** *	13	19	1250	61	10	44	38	0.13	>10000	10	<0.5	14	0.02	5.5	23
151	2159	Lucky Chance Mtn	C	2.4	175	0.4	12	90	6	<1	7	2	0.15	112	<10	<0.5	<2	<0.01	<0.5	184
151	2160	Lucky Chance Mtn	S		125	0.4	36	128	12	<1	13	4	0.25	550	10	<0.5	<2	0.01	<0.5	210
152	2157	Lucky Chance Mtn	C	2.5	55	<0.2	22	8	212	<1	13	6	0.82	274	40	<0.5	<2	0.06	2	189
152	2158	Lucky Chance Mtn	S		2230	5.8	13	924	18	1	5	1	0.25	248	10	<0.5	8	0.02	0.5	189
153	2230	Lucky Chance Mtn	C	2	<5	<0.2	7	16	12	<1	4	1	0.09	748	10	<0.5	<2	<0.01	2.5	258
153	2231	Lucky Chance Mtn	C	2	<5	<0.2	2	4	12	1	5	1	0.04	270	<10	<0.5	<2	<0.01	<0.5	391
153	2232	Lucky Chance Mtn	Rep	1.5	<5	<0.2	49	2	12	1	7	2	0.07	312	<10	<0.5	<2	0.01	<0.5	464
153	2233	Lucky Chance Mtn	C	1.5	<5	<0.2	1	2	6	1	5	1	0.02	450	<10	<0.5	<2	<0.01	<0.5	423
153	2234	Lucky Chance Mtn	C	3	<5	0.8	3	178	14	1	6	1	0.17	2380	20	<0.5	<2	0.02	1.5	339
154	2228	Lucky Chance Mtn	C	6	820	0.2	1	34	4	<1	5	1	0.08	3200	10	<0.5	<2	0.01	0.5	256
154	2229	Lucky Chance Mtn	S		4840	0.2	13	30	34	1	7	3	0.66	3530	20	<0.5	<2	0.1	2	245
155	2781	Hill	G		<5	<0.2	20	<2	52	<1	805	32	0.34	24	<10	<0.5	<2	0.21	<0.5	6080
156	2712	Goddard Hot Springs	C	0.5	<5	<.2	3	16	6	<1	2	<1	0.22	6	10	0.5	<2	0.52	<.5	58
156	2713	Goddard Hot Springs	RC	2.5	<5	<.2	6	10	16	<1	4	1	0.35	<2	<10	0.5	2	0.1	<.5	117

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Fe	Ga	Hg	K	La	Mg	Mn	Na	P	Sb	Sc	Sr	Ti	Tl	U	V	W	Pt	Pd	Sam. Site	Sample Description
141	2098	0.84	<10	30	0.05	<10	0.06	70	0.01	60	<2	<1	6	<0.01	<10	<10	5	<10			UW	Br qz, py to 2% locally
141	2099	0.86	<10	20	0.08	<10	0.11	65	0.01	60	<2	<1	4	<0.01	<10	<10	7	<10			UW	Qz vein w/ py to 1%
141	2100	0.51	<10	30	0.02	<10	0.02	35	<0.01	<10	<2	<1	13	<0.01	<10	<10	3	<10			UW	Qz vein w/ ribbon texture, <1% py
141	2147	1.89	<10	6210	0.14	<10	0.62	375	0.01	290	<2	<1	161	<0.01	<10	<10	12	<10			UW	Qz in gw/slate, py <1%
141	2148	0.68	<10	2390	0.05	<10	0.13	55	<0.01	80	<2	<1	3	<0.01	<10	<10	5	<10			OC	Qz vein w/ trace py
141	2164	14.5	<10	48300	0.02	<10	0.05	140	<0.01	560	<2	<1	2	<0.01	<10	<10	14	<10			MT	Crushed rock within stamp battery
141	2201	0.37	<10	30	0.01	<10	0.01	25	<0.01	100	<2	<1	25	<0.01	<10	<10	1	<10			UW	Qz vein w/ minor ribbons, py to 2%
141	2202	0.51	<10	10	0.02	<10	0.01	35	<0.01	<10	2	<1	2	<0.01	<10	<10	2	<10			UW	Qz vein on fw of fault, py to 1% in clots
141	2203	2.45	<10	20	0.19	<10	0.68	320	0.01	320	<2	1	110	<0.01	<10	<10	16	<10			UW	Qz & sheared gw/slate, py <1%
141	2221	3.27	<10	>100000	0.04	<10	0.08	45	<0.01	340	2	<1	5	<0.01	<10	<10	11	<10			MT	Tailings from below agitator on millsite
141	2222	9.64	<10	>100000	0.03	<10	0.01	35	<0.01	500	42	<1	4	<0.01	<10	<10	5	<10			MT	High-grade from concentrates near mill
142	2223	1.01	<10	1880	0.05	<10	0.22	165	0.01	110	<2	<1	49	<0.01	<10	<10	13	<10			UW	Qz vein along fault, trace py
142	2224	0.56	<10	470	0.02	<10	0.06	190	<0.01	30	<2	<1	94	<0.01	<10	<10	4	<10			UW	Qz vein adj to sample 2223, no py
142	2225	2.22	<10	1600	<0.01	<10	0.24	3850	<0.01	600	<2	<1	92	0.01	<10	<10	49	<10			UW	Qz and gw, br, w/calc veinlets
142	2226	5.02	<10	410	0.14	<10	0.52	3580	0.01	1500	<2	2	195	0.06	<10	<10	151	<10			UW	Sil gs w/ calc ooze, py to 5%
142	2227	0.68	<10	500	0.04	<10	0.1	70	0.01	30	<2	<1	2	<0.01	<10	<10	9	<10			OC	Qz vein w/ gw partings, fest
143	2214	2.05	<10	1090	0.23	<10	0.6	1115	<0.01	370	<2	1	1100	0.01	<10	<10	18	<10			UW	Qz w/ sheared gw/pl, no sulf
143	2215	1.54	<10	710	<0.01	<10	0.11	755	<0.01	690	<2	<1	180	<0.01	<10	<10	48	<10			UW	Qz pod along fault, py to 5%
144	2220	0.53	<10	210	0.02	<10	0.07	45	<0.01	20	<2	<1	1	0.01	<10	<10	5	<10			OC	Qz vein near trench, no sulf
145	2219	0.66	<10	210	0.02	<10	0.06	40	<0.01	20	<2	<1	3	0.01	<10	<10	3	<10			OC	Qz vein hosted by gw/pl
146	2218	0.59	<10	410	0.02	<10	0.06	70	<0.01	<10	<2	<1	1	<0.01	<10	<10	3	<10			OC	Qz vein, gs sc, no sulf, near trench
147	2154	0.31	<10	790	<0.01	<10	0.01	90	<0.01	10	<2	<1	3	<0.01	<10	<10	1	<10			OC	Qz veins w/ limonite, fest
147	2155	0.68	<10	360	0.01	<10	0.06	185	<0.01	60	<2	<1	6	<0.01	<10	<10	2	<10			MD	Qz w/ limonite, sericite, no sulf
147	2156	2.02	<10	430	0.05	<10	1.81	375	0.02	150	<2	3	79	<0.01	<10	<10	23	<10			OC	Qz stringer zone, no visible sulf
148	2153	0.52	<10	710	0.02	<10	0.01	90	<0.01	<10	<2	<1	2	<0.01	<10	<10	1	<10			FL	Fest qz w/ slaty partings, aspy <1%
149	2151	4.75	<10	120	0.23	10	1.36	690	0.02	740	2	3	126	<0.01	<10	<10	44	<10			UW	Gp fault gouge w/ qz stringers, py <1%
149	2152	0.56	<10	850	0.02	<10	0.11	50	<0.01	50	<2	<1	17	<0.01	<10	<10	3	<10			TP	Fest qz lens in fault zone, trace py, aspy
150	2210	0.57	<10	180	0.02	<10	0.03	110	<0.01	60	<2	<1	8	<0.01	<10	<10	2	<10			MD	Qz vein w/ gw partings, visible gold, aspy
150	2211	1.09	<10	80	0.05	<10	0.31	320	<0.01	150	<2	<1	90	<0.01	<10	<10	2	<10			MD	Qz w/ gw partings, aspy to 1%
150	2212	1.01	<10	40	0.08	<10	0.21	230	<0.01	140	<2	<1	79	<0.01	<10	<10	4	<10			MD	Qz w/ gw partings, aspy stringers
150	2213	>15.00	<10	>100000	0.02	<10	0.04	35	<0.01	250	66	<1	3	<0.01	<10	<10	2	90			MT	High-grade from concentrates near mill
151	2159	0.59	<10	120	0.02	<10	0.07	90	<0.01	40	<2	<1	1	<0.01	<10	<10	2	<10			TP	Fest qz, slaty partings, w/ py, aspy
151	2160	0.86	<10	690	0.05	<10	0.11	90	<0.01	80	<2	<1	6	<0.01	<10	<10	4	<10			MD	Qz w/ slaty partings, aspy + py <1%
152	2157	1.63	<10	200	0.11	<10	0.41	315	0.01	220	<2	1	13	<0.01	<10	<10	20	<10			TP	Fest qz, sheared gw, py <1%
152	2158	0.82	<10	170	0.05	<10	0.14	140	<0.01	110	<2	<1	4	<0.01	<10	<10	8	<10			MD	Fest qz and gw w/ gn, py, aspy
153	2230	0.52	<10	90	0.03	<10	0.03	30	<0.01	<10	<2	<1	2	<0.01	<10	<10	3	<10			TP	Qz vein w/ trace aspy, fest
153	2231	0.43	<10	110	0.02	<10	0.01	20	<0.01	<10	<2	<1	<1	<0.01	<10	<10	2	<10			OC	Qz vein adj to sample 2230, no sulf
153	2232	0.78	<10	50	0.02	<10	0.02	60	<0.01	10	2	<1	1	<0.01	<10	<10	3	<10			UW	Qz vein at face of short adit
153	2233	0.46	<10	100	<0.01	<10	<0.01	100	<0.01	<10	<2	<1	2	<0.01	<10	<10	2	<10			UW	Qz vein w/ trace py/aspy
153	2234	0.78	<10	80	0.05	<10	0.07	70	<0.01	80	<2	<1	7	<0.01	<10	<10	6	<10			UW	Qz vein at face of short adit
154	2228	0.74	<10	220	0.03	<10	0.02	40	<0.01	30	<2	<1	8	<0.01	<10	<10	2	<10			TP	Qz vein in black pl, aspy to 2%, py
154	2229	2.06	<10	130	0.06	<10	0.42	140	<0.01	440	2	<1	14	<0.01	<10	<10	9	<10			OC	Sulf-rich qz w/ pl partings
155	2781	3.35	<10	10	<0.01	<10	7.22	570	<0.01	<10	<2	2	<1	0.01	<10	<10	28	<10			FL	Mag/chromite serpentinite
156	2712	0.19	<10	<10	0.11	<10	0.06	150	0.09	90	<2	<1	47	<.01	<10	<10	2	<10			OC	Qz vein xcut Sitka Gw, feldspar, micas
156	2713	0.56	<10	<10	0.16	<10	0.12	120	0.06	40	<2	1	6	0.01	<10	<10	4	<10			OC	Monzonite-pegmatite dike

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Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Al	As	Ba	Be	Bi	Ca	Cd	Cr
156	2714	Goddard Hot Springs	G	0.25	<5	<.2	60	2	28	<1	24	8	6.33	32	140	0.5	2	4.27	<.5	110
157	2519	Goddard Hot Springs	Rep		<5	<.2	58	4	44	<1	7	6	0.75	8	270	<.5	<2	0.07	<.5	56
158	2520	Goddard Hot Springs	C	0.2	465	<.2	13	<2	32	4	5	3	0.74	92	160	<.5	32	0.15	<.5	165
159	2521	Goddard Hot Springs	C	0.4	<5	<.2	4	<2	32	<1	5	2	0.89	6	100	<.5	<2	0.06	<.5	121
160	2036	Red Bluff Bay	PC	8 pans	<5	<.2	9	2	122	<1	209	42	0.19	4	<10	<.5	2	0.07	<.5	34.4 *
161	2717	Red Bluff Bay	S	10x10	<5	<.2	22	<1	7	<1	1140	26	0.29	4	<10	<.5	8	0.07	<.5	1720
162	2037	Red Bluff Bay	PL	0.1 yd	<5	<.2	47	4	88	<1	309	41	1.68	8	30	<.5	8	1.24	<.5	4.8 *
163	2539	Red Bluff Bay	Rep	0.8	<5	<.2	13	<2	12	<1	356	37	0.22	14	<10	<.5	4	0.26	<.5	717
164	2537	Red Bluff Bay	Rep	0.5	36	<.2	17	<2	4	<1	992	48	0.11	86	<10	<.5	6	0.04	<.5	465
165	2538	Red Bluff Bay	Rep	20	160	<.2	46	<1	1	<1	8	3	0.11	54	<10	<.5	2	0.06	<.5	216
166	2532	Patterson Bay	SS		10	<.2	92	5	71	1	45	22	2.8	14	20	<.5	2	0.71	<.5	115
167	2531	Patterson Bay	SS		<5	0.2	102	10	43	1	20	11	1.71	16	10	<.5	4	0.8	<.5	31
168	2035	Patterson Bay	Rep		<5	<.2	66	<2	86	1	17	13	2.91	<2	170	<.5	<2	0.49	<.5	87
169	2533	Patterson Bay	G	0.3	45	<.2	3100	2	43	23	4	11	1.25	32	60	<.5	<2	1.89	<.5	78
169	2715	Patterson Bay	S		50	<.2	730	2	51	109	3	10	2.53	4	20	<.5	4	2.86	<.5	44
170	2534	Patterson Bay	SS		<5	<.2	36	4	94	<1	32	12	2.47	8	20	<.5	2	0.87	<.5	69
171	2535	Patterson Bay	SS		90	<.2	28	6	53	1	7	15	2.57	112	80	<.5	<2	0.65	<.5	9
171	2536	Patterson Bay	G		970	<.2	50	2	60	<1	4	11	0.6	4820	40	<.5	2	3.76	<.5	39
171	2716	Patterson Bay	S		20	<.2	1400	<1	60	2	4	6	3.16	<2	10	<.5	<2	2.74	<.5	73
172	2034	Patterson Bay	Rep	3	<5	<.2	72	<2	96	1	20	26	2.73	2	120	<.5	4	4.04	0.5	20
173	2033	Patterson Bay	S	0.7	<5	<.2	60	2	58	<1	14	9	0.41	4	70	<.5	4	6.41	<.5	67
174	2525	Snipe Bay	SS		<5	<.2	19	4	76	<1	14	10	1.68	4	140	<.5	<2	0.19	<.5	32
175	2526	Snipe Bay	SS		<5	0.2	48	8	116	1	32	33	2.41	22	210	<.5	4	0.25	<.5	48
176	2524	Snipe Bay	SS		<5	<.2	13	4	78	1	10	13	2.08	2	230	<.5	<2	0.15	<.5	36
177	2523	Snipe Bay	SS		<5	<.2	28	6	98	1	20	11	2.37	<2	350	<.5	2	0.2	<.5	40
178	2522	Snipe Bay	S		40	11	4.7 *	16	252	<1	7910	456	1.46	22	<10	<.5		0.29	2	2260
179	2021	Snipe Bay	Rep		<5	<.2	13	2	22	<1	4	2	0.62	6	120	<.5	<2	0.21	<.5	246
180	2019	Snipe Bay	Rep	1x3	<5	<.2	19	<2	18	<1	7	2	1.23	<2	50	<.5	2	0.76	<.5	267
180	2020	Snipe Bay	Rep		<5	<.2	11	<2	12	<1	6	1	0.61	2	40	<.5	<2	0.51	<.5	376
180	2108	Snipe Bay	Rep		<5	<.2	37	<2	94	2	21	10	2.42	<2	450	<.5	2	0.34	<.5	86
181	2606	Redfish Bay	Rep	2	<5	<0.2	<1	2	<2	<1	<1	<1	0.16	<2	<10	<0.5	<2	<0.01	<0.5	42
181	2607	Redfish Bay	Rep	3	<5	<0.2	1	<2	<2	<1	2	<1	0.06	<2	<10	<0.5	<2	<0.01	<0.5	193
181	2782	Redfish Bay	RC	5x10	<5	<0.2	7	2	<2	<1	7	<1	0.23	<2	<10	<0.5	2	<0.01	<0.5	145
181	2783	Redfish Bay	RC	10x10	<5	<0.2	7	<2	4	<1	8	<1	0.33	<2	<10	<0.5	2	0.01	<0.5	247
182	2530	Port Lucy	Rep		<5	<.2	9	2	12	<1	12	2	0.24	4	10	<.5	<2	0.06	<.5	224
183	2527	Port Lucy	C	1	<5	<.2	120	<2	2	<1	25	1	0.02	<2	<10	<.5	<2	0.06	<.5	261
184	2529	Port Lucy	C	3	<5	<.2	11	<2	2	<1	5	<1	0.08	2	<10	<.5	<2	0.02	<.5	241
185	2528	Port Lucy	C	2	<5	<.2	197	2	4	<1	45	3	0.07	4	<10	<.5	<2	0.02	<.5	278
186	2024	Port Armstrong	Rep	1	<5	<.2	11	2	6	<1	7	1	0.2	4	70	<.5	<2	0.09	<.5	340
187	2023	Port Armstrong	C	0.8x3	<5	<.2	20	<2	16	<1	8	2	0.52	4	<10	<.5	<2	0.23	<.5	326
188	2022	Port Armstrong	Rep	0.5	<5	<.2	8	4	10	<1	6	1	0.23	<2	<10	<.5	<2	0.1	<.5	272
189	2032	Port Conclusion	S	5.3	<5	0.2	455	44	238	1	6	13	0.19	<2	<10	<.5	<2	0.04	0.5	204
190	2031	Port Conclusion	S	0.25x15	45	0.2	188	6	60	12	76	16	0.48	<2	10	<.5	<2	0.63	<.5	188
191	2030	Port Conclusion	Rep	30	<5	<.2	25	<2	18	<1	9	4	0.41	2	30	<.5	<2	0.66	<.5	347
192	2029	Port Conclusion	Rep	40	<5	<.2	24	2	20	<1	8	2	0.81	<2	10	<.5	<2	1.99	<.5	341

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Fe	Ga	Hg	K	La	Mg	Mn	Na	P	Sb	Sc	Sr	Ti	Tl	U	V	W	Pt	Pd	Sam. Site	Sample Description
156	2714	1.14	10	<10	0.2	<10	0.26	65	0.42	790	4	1	323	0.1	<10	<10	32	<10			OC	Sil zone in hn, 1% po
157	2519	1.87	<10	<10	0.54	<10	0.48	230	0.02	220	2	5	2	0.14	<10	<10	32	<10			OC	Fest gd w/ blebs of py
158	2520	1.44	<10	<10	0.56	<10	0.47	215	0.02	230	<2	5	12	0.13	<10	<10	43	<10			OC	Qz vein in gw w/ po to 1%
159	2521	1.31	<10	<10	0.56	10	0.34	230	0.03	190	<2	4	4	0.1	<10	<10	30	<10			OC	Qz lens near gd/gw contact
160	2036	2.84	<10	10	<.01	<10	2.21	460	<.01	20	<2	1	1	0.02	<10	<10	30	<10	60	24		Chromite/mag in concentrate
161	2717	1.87	<10	<10	<.01	<10	12.5	325	<.01	<10	<2	3	<1	<.01	<10	<10	8	<10	20	28	RC	Chromite layers in dunite
162	2037	9.19	<10	10	0.04	<10	3.4	880	0.11	160	<2	11	26	0.13	<10	<10	115	<10				Insufficient sample for PGM analysis
163	2539	2.77	<10	<10	<.01	<10	6.34	325	<.01	<10	<2	6	3	<.01	<10	<10	43	<10	90	84	RC	Pyroxenite
164	2537	2.57	<10	<10	<.01	<10	10.95	495	<.01	20	<2	2	2	<.01	<10	<10	6	<10	10	4	OC	Dunite
165	2538	0.77	<10	<10	0.02	<10	0.11	40	<.01	40	<2	<1	4	<.01	<10	<10	7	<10	<5	<2	RC	Qz vein on beach, po to 1%
166	2532	4.46	<10	20	0.12	<10	2.15	725	0.11	1050	<2	8	37	0.25	<10	10	116	<10				Elevation 5 feet
167	2531	2.81	<10	60	0.17	<10	1.28	440	0.33	1260	2	5	96	0.19	<10	10	76	<10				Sea level
168	2035	4.23	<10	10	1.4	<10	1.44	365	0.09	740	<2	14	18	0.25	<10	<10	146	<10			FL	Sulf stringers/coatings in amphibolite
169	2533	2.78	<10	30	0.26	10	0.34	345	<.01	520	<2	2	20	<.01	<10	<10	18	<10			RC	Tonalite w/ sil zone; cp and ml
169	2715	3.46	<10	320	0.16	<10	1.23	620	0.02	530	4	7	39	0.14	<10	<10	75	<10			FL	Sil gs, <1% cp, gp
170	2534	3.95	<10	20	0.07	10	1.89	1210	<.01	780	<2	8	27	0.27	<10	<10	90	<10				Sea level
171	2535	3.12	<10	90	0.08	<10	0.78	1185	0.11	1110	<2	3	49	0.05	<10	<10	45	10				Sea level
171	2536	3.26	<10	70	0.19	<10	1.19	795	0.02	600	<2	3	188	<.01	<10	<10	11	<10			FL	Sil rock w/ dissem po
171	2716	2.71	<10	50	0.05	<10	1.13	650	0.03	420	<2	3	34	0.12	<10	<10	60	<10			FL	Tonalite, <1% cp, ml; fest
172	2034	5.33	<10	<10	0.24	<10	2.87	425	0.03	1840	<2	14	110	0.05	<10	<10	142	<10			OC	Qz veins in sil gw, py, trace mo
173	2033	4.05	<10	<10	0.17	<10	1.93	1140	0.03	470	<2	6	279	<.01	<10	<10	28	<10			FL	Chert, qz br, cp to 1%, py/po
174	2525	2.77	<10	10	0.43	<10	1.01	400	0.04	540	<2	4	17	0.13	<10	<10	59	<10				Sea level
175	2526	4.14	<10	10	0.61	<10	1.32	1160	0.2	1010	<2	7	37	0.14	<10	10	93	<10				Sea level
176	2524	3.34	<10	20	0.79	<10	1.03	630	0.01	410	<2	6	10	0.2	<10	<10	79	<10				Elevation 15 feet
177	2523	4.43	<10	10	1.28	<10	1.33	640	<.01	620	<2	7	26	0.22	<10	<10	87	<10				Elevation 10 feet
178	2522	18.9	<10	<10	0.03	<10	1.73	105	0.07	480	16	6	10	0.21	<10	<10	341	<10			RC	Norite w/ po, cp, pentlandite to 20%
179	2021	1.01	<10	10	0.24	<10	0.3	135	0.06	520	2	1	19	0.02	<10	<10	18	<10			OC	Qz vein w/ sc partings
180	2019	0.92	<10	10	0.12	<10	0.24	110	0.15	320	2	1	42	0.01	<10	<10	22	10			RC	Qz vein w/ sc partings, py < 1%
180	2020	0.78	<10	<10	0.1	<10	0.16	175	0.06	280	<2	1	34	0.01	<10	<10	17	<10			RC	Qz vein w/ qz-bt-sc partings, trace py
180	2108	3.68	<10	<10	1.31	<10	1.42	380	0.04	900	<2	10	13	0.15	<10	<10	111	<10			OC	Bt sc w/ py stringer, clots, fest
181	2606	0.07	<10	30	0.17	<10	<0.01	5	0.02	10	<2	<1	<1	<0.01	<10	<10	<1	<10			OC	Pegmatite
181	2607	0.2	<10	30	0.05	<10	<0.01	35	0.01	10	<2	<1	<1	<0.01	<10	<10	<1	<10			OC	Qz/pegmatite zone
181	2782	0.35	<10	20	0.15	<10	0.04	20	0.02	40	<2	<1	<1	<0.01	<10	<10	<1	<10			OC	Pegmatite w/ qz, mica, microcline
181	2783	0.32	<10	100	0.14	<10	0.05	160	0.05	80	<2	<1	<1	<0.01	<10	<10	1	<10			OC	Pegmatite w/ qz, mica, microcline
182	2530	0.51	<10	<10	0.03	<10	0.21	60	0.01	70	2	<1	2	<.01	<10	<10	9	<10			OC	Qz stringers to 0.1-m wide
183	2527	0.29	<10	<10	<.01	<10	0.01	20	<.01	<10	<2	<1	1	<.01	<10	<10	2	<10			OC	Qz vein in gw
184	2529	0.3	<10	<10	<.01	<10	0.03	15	<.01	<10	2	<1	1	<.01	<10	<10	3	<10			OC	Qz vein in gw
185	2528	0.44	<10	<10	0.01	<10	0.02	15	0.01	20	<2	<1	3	<.01	<10	<10	4	<10			OC	Qz vein w/ 1% po hosted in gw
186	2024	0.55	<10	10	0.06	<10	0.07	55	0.03	90	<2	<1	7	0.01	<10	<10	6	<10			OC	Qz vein, py/po < 1% locally
187	2023	0.98	<10	<10	0.02	<10	0.23	95	0.02	120	<2	1	2	0.01	<10	<10	16	<10			OC	Qz vein w/ arg partings, py along margins
188	2022	0.61	<10	<10	0.02	<10	0.12	50	0.02	170	<2	<1	6	<.01	<10	<10	7	<10			OC	Qz vein in gw w/ po in clots, locally
189	2032	1.42	<10	<10	0.04	<10	0.07	40	<.01	50	<2	<1	3	0.01	<10	<10	6	<10			OC	Qz veins w/ gw selvage, up to 5% py
190	2031	3.94	<10	<10	0.03	10	0.12	4400	0.02	1300	<2	1	42	0.03	<10	<10	49	<10			OC	Qz vein w/ arg selvage, py/po
191	2030	0.9	<10	<10	0.11	<10	0.17	135	0.04	230	4	1	35	0.02	<10	<10	15	<10			OC	Qz veins w/ gw partings, py/po to 1%
192	2029	0.89	<10	<10	0.08	<10	0.2	300	0.05	350	<2	1	37	0.01	<10	<10	16	<10			OC	Qz veins w/ qz br, arg, py/po < 1%

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Au	Ag	Cu	Pb	Zn	Mo	Ni	Co	Al	As	Ba	Be	Bi	Ca	Cd	Cr
193	2027	Port Conclusion	Rep	20	<5	<.2	26	2	22	<1	8	3	1.13	10	10	<.5	<2	1.27	<.5	149
194	2026	Port Conclusion	Rep		<5	<.2	3	2	4	<1	4	1	0.07	2	<10	<.5	<2	0.07	<.5	249
195	2025	Port Conclusion	Rep	75	<5	<.2	6	2	8	<1	5	1	0.12	18	<10	<.5	<2	0.32	<.5	287

Table A-1. Analytical results from mines, prospects, occurrences and reconnaissance samples

Map No.	Sam. No.	Fe	Ga	Hg	K	La	Mg	Mn	Na	P	Sb	Sc	Sr	Ti	Tl	U	V	W	Pt	Pd	Sam. Site	Sample Description
193	2027	0.92	<10	10	0.05	<10	0.25	205	0.09	810	2	1	46	0.01	<10	<10	18	<10			OC	Sil gw sc w/ qz veins; py to 1%, fest
194	2026	0.34	<10	<10	<.01	<10	0.04	20	<.01	20	2	<1	2	<.01	<10	<10	3	<10			OC	Qz veins w/ gw partings, trace py/po
195	2025	0.47	<10	<10	0.01	<10	0.07	135	<.01	60	<2	<1	8	0.01	<10	<10	6	<10			OC	Qz veins w/ minor py

Table A-2. Analytical results from REE sampling at Redfish Bay

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Ce	Eu	La	Lu	Nd	Sm	Tb	Th	U	Yb	Sam. Site	Sample Description
181	2606	Redfish Bay	RC	2	19	0.7	7	0.2	8	2	<0.5	13	15	0.9	OC	Pegmatite
181	2607	Redfish Bay	RC	3	<2	<0.5	<1	<0.1	<5	<0.1	<0.5	<0.5	2	<0.5	OC	Qz pegmatite zone

Table A-3. Analytical results from carbonate sampling

Map No.	Sam. No.	Location	Sam. Type	Sample Size (ft)	Al_2O_3	CaO	Cr_2O_3	Fe_2O_3	K_2O	MgO	MnO	Na_2O	P_2O_5	SiO_2	TiO_2	LOI	TOTAL	Sam. Site	Sample Description
20	LS-1	False Bay	SC	200 @ 10	0.6	51.17	<0.01	0.58	0.18	2.08	0.01	0.11	<0.01	1.73	0.02	42.21	98.69	TP	Micritic, clots of organics
20	LS-2	False Bay	SC	200 @ 10	0.41	50.11	<0.01	0.45	0.12	3.25	0.02	0.08	<0.01	1.16	0.01	42.87	98.48	TP	Micritic, clots of organics

Table A-4. - Detection limits by analytical technique.

Fire assay-atomic absorption spectrophotometry/gravimetric finish

Element	Minimum, ppm	Maximum, ppm
Au, Pt, Pd	0.005	none

Atomic absorption spectrophotometry (AA)

Element	Minimum, ppm	Maximum, ppm
Ag	0.2	100
Cu	1	10,000
Pb	1	10,000
Zn	1	10,000
Mo	1	1,000
Co	1	10,000
Ni	1	10,000
Hg	0.01	100

Colorimetrics

Element	Minimum, ppm	Maximum, ppm
W	2	1,000

Inductively coupled argon plasma (ICP)

Element	Min. ppm	Max. ppm	Element	Min. ppm	Max. ppm
Ag	0.2	50	Ga	10	10,000
Cu	1	20,000	K	1,000	100,000
Pb	2	10,000	La	10	10,000
Zn	1	20,000	Mg	100	150,000
Mo	1	20,000	Mn	1	20,000
Ni	1	20,000	Na	100	100,000
Co	1	20,000	P	10	10,000
Al	100	150,000	Sb	5	2,000
As	5	2,000	Sc	1	10,000
Ba	100	10,000	Sr	1	10,000
Be	0.5	500	Ti	100	100,000
Bi	2	20,000	Tl	10	10,000
Ca	100	150,000	U	10	10,000
Cd	0.5	500	V	1	10,000
Cr	1	20,000	W	10	2,000
Fe	5	5,000			

APPENDIX B. SUMARY INFORMATION FOR ALL MINES, PROSPECTS, AND MINERAL OCCURRENCES

The following table provides summary information for most mines, prospects, and mineral occurrences found in the study area. The types of information provided include: prospect name and MAS number, location information, land status, deposit type and main commodities present, mine workings and current status (open, caved, flooded, etc.), production figures (when available), Bureau work during this study, and selected references for additional information. The last category provides a subjective ranking of mineral development potential. This ranking prioritizes prospects with respect to one another. Those properties given an H-rating have more development potential than a property given an L-rating. It should be noted that these evaluations are based on limited information and should not be viewed with finality. There is always a chance that detailed examination of any one of these mineral occurences may result in a producing mine.

PROSPECT TABLE ABBREVIATIONS AND DESCRIPTIONS

Map No.:

Refers to mine, prospect or occurrence numbers depicted on figure 5.

MAS No./Name:

MAS refers to the Minerals Availability System database formerly supported by the U. S. Bureau of Mines, (currently supported by the U. S. Bureau of Land Management)

Location:

Township, range, section, quad #, sheet #

Land status:

N	Native
S	State
OF	Open Federal
CF	Closed Federal
P	Private (mineral survey number listed)

Deposit type: (with commodity abbreviations)

V	Vein
PV	Polymetallic vein
Mag Seg	Magmatic segregation
S	Skarn

P	Porphyry
Dissem	Disseminated sulfides
VMS	Volcanogenic massive sulfide
Peg	Pegmatite
PL	Placer
Geo	Geothermal

Workings:

T(s)	Trench(es)
P(s)	Pit(s)
C(s)	Cut(s), opencut(s)
# Adit(s):	lengths; (caved lengths in paren.)
# Shaft(s):	depths; (flooded depths in paren.)

Production:

NA	Not Applicable

Bureau work:

M	Mapped
S	Sampled
R	Reconnaissance, recon sampling
NF	Not found
NE	Not examined

Select references:

Numbers refer to items listed in the bibliography

MDP (mineral development potential): All mines, prospects and occurrences examined are classified according to the following criteria, based on resources and grades of mineralization.

H	High grades and probable continuity of mineralization exist. The property is likely to have economically mineable resources under current economic conditions. A high potential exists for developing tonnage or volume with reasonable geologic support for continuity of grade.
M	Either a high grade or continuity of mineralization exists, but not both. Mineralization is confined by geology and/or structures, or

	grades are overall low. It could serve as a resource if economics were not a factor, but is presently uneconomic under existing conditions.
L	The property exhibits uneconomic grades and/or little evidence of continuity of mineralization. There is little or no obvious potential for developing ore resources or it is an insignificant source of the material of interest.
ND	Not determined.

Table B-1. Summary table for all mines, prospects and mineral occurrences.

Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
1	0021110083 LEMESURIER ISLAND PALIGORSKITE	T41S, R57E, SEC 27, 111B1	CF	Replacement in ls	NA	1,000 lb test shipment (94)	Material tested by USBM Rolla Lab (94)	NE	94, 191, 263	L
2	0021110084 BONANZA	T41S, R57E, Sec 34, SW, 111B1	CF	S: Mo, Cu	NA	NA	None	NE	191	L
3	0021110069 CROW POINT	T42S, R57E, Sec 3, 111B1	CF	S: Mo, Cu	NA	NA	MoS_2 to 0.47% (286)	NE	286, 321	L
4	0021110068 WHITNEY	T42S, R57E, Sec 4, 111B1	P: MS 1427, 1428	S: Mo	Adits (2): 78, 25	NA	None	NE	270, 286	L
5	0021110081 INIAN ISLAND	T42S, R55E Sec 12, 111A1	CF	Fe?	NA	NA	None	NE	262	L
6	0021110070 MARVITZ	T43S, R55E, Sec 21, 111A2	OF	V: Au, Ag, Pb	Adits (3): 25, 50, 210; OC	NA	Free Au found in veins (230)	NE	230, 262	L
6	0021110085 COLUMN POINT	T43S, R55E, Sec 21, 111A2	OF	PL	NA	NA	Claims staked in 1974, worked in 1976	NE	262	L
7	0021120156 NEKA BAY	T43S, R59E, Sec 19, 112A6	N	V: Cu, Pb, Zn	TP	NA	1.5-ft to 3.5-ft-wide vein exposed over 50' along strike w/ up to 6.3% Cu, 0.38% Pb, & 1.9% Zn (321)	NA	321	L
8	0021110080 SURGE BAY	T44S, R54E, Sec 26, 111A2	CF	Mag Seg: Cu, Ni	NA	NA	None	NE	48	L

Table B-1. Summary table for all mines, prospects and mineral occurrences.

Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
9	0021140079 SQUID BAY	T46S, R55E, Sec 15, 114D8	CF	Mag Seg: Cu, Ni; gb-norite host	NA	NA	Composite grab sample contained 0.38% Cu, 0.05% Ni (177)	NE	177, 191	L
10	0021140017 BOHEMIA BASIN	T45S, R55E, Sec 12, 13, 114D8	P; OF; MS 2257, 2258	Mag Seg; Ni, Cu, Co; 3 orebodies hosted in layered gb-norite complex	Adit; T (15); Diamond drilling (30,000 ft)	Test ship-ment	Resources: 20 million tons grading 0.31% Ni, 0.18% Cu, 0.04% Co; measured and inferred categories (177)	recon	90, 175, 177, 224, 233, 254, 319, 324	M-H
11	0021110088 BON TARA NO. 1	T44S, R55E, Sec 36, 111A2	OF	V: Au, Ag, di host w/gb	Adit: 35; OC: several	$1,100 Au (220)	Samples contain from nil to 0.16 oz/t Au; best samples from surface cut (177)	recon	177, 220	L-M
12	0021140039 GOLDWIN	T45S, R56E, Sec 3, 114D8	OF	V: Au, Ag, Cu; di w/ minor chl sc	Adit: 265		Sample of py contained 69oz/t Au (262); other samples contained: 7" at 0.11oz/t; 10" wallrock contained trace to 0.05 oz/t Au; 14 samples: nil to 0.14 oz/t (177)	recon	177, 245, 262, 338	L-M
13	0021140070 NILSEN	T45S, R56E, Sec 11, 114D7	OF	V: Au	NA	NA	None	NE	48	L
14	0021140201 ROSSMAN VEIN	T45S, R56E, Sec 14, 114D7	CF	V: Au	NA	NA	Assays up to 1 oz/ton (262)	NE	262	L
15	0021140084 COLUMBINE GROUP	T45S, R56E, Sec 22, 114D7	OF	V: Au	NA	NA	None	NE	48	L

Table B-1. Summary table for all mines, prospects and mineral occurrences.

Map No.	MAS No. Name	Location	Land status	Deposit type	Workings	Production	Significant results	Bureau work	Select references	MDP
16	0021140008 APEX EL NIDO	T45S, R56E, Sec 23, 114D7	OF; active claims	V: Au, Ag, W; hosted in di and amphibolite; veins 1'-4' wide	Adits: Apex (4) 1490 (caved), 800, 400, 60; El Nido (2) 1000, 680	17,000 oz Au, 2,400 oz Ag	Resources: Indicated 26,633 tons @ 0.945 oz/t Au (135); Samples contained trace to 3.8 opt Au across 0.2 to 3.8 ft-wide veins; aplite dikes contained trace to 0.04 oz/t Au (177)	recon	135, 177, 262, 317	H
17	0021140092 PHONOGRAPH	T46S, R58E, Sec 6, 114D7	OF	Mag Seg: Ni; hosted in pyroxenite	NA	None	Sample contained 0.31% Ni, trace Au	recon	321	L
18	0021140040 CAMEL GYPSUM	T46S, R64E, Sec 1, 114D3	OF	Hydrothermal or sedimentary gypsum	Adits (5): 75, (4 caved)	NA	BuMines drilled in 1948: minimal success (145)	recon	96, 111, 117, 145	L
19	0021140041 KAISER GYPSUM	T46S, R64E, Sec 2, 114D3	P: MS 647	Hydrothermal deposit: gypsum	glory hole; shafts (2): drifts	500,000 tons	No exam	recon	96, 117, 294	L
20	0021140015 BIG LEDGE	T47S, R64E, Sec 12, 114D3	OF	Mag Seg: Cu, Ni	T; P	NA	Samples contained up to 0.91% Cu and 0.84% Ni across 40 ft. Hi-grade contained 7.02% Cu, 4.4% Ni, and 910 ppm Co	M, S	48, 295	L-M
21	0021140010 BALDY LODE	T47S, R64E, Sec 15, 114D4	OF	S: Cu	T; P	NA	Samples contained up to 0.29% Cu, 240 ppm W	S	48	L
22	0021140211 HILL POINT	T47S, R64E, 114D4	OF	Dike: Mo, Cu	NA	NA	Chip sample contained 0.01% Mo, 0.07% Cu (286); Bureau sampling across 0.3 ft contained 290 ppm Cu, 232 ppm Mo	S	286	L

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
23	0021140200 COLUMBIA POINT	T47S, R64E, Sec 18, 114D4	S	Dike: Cu	NA	NA	None	recon	188	L
24	0021140100 TENAKEE INLET MARBLE	T47S, R63E, Sec 23, 114D4	S	Marble	NA	None	Marble contains abundant greenstone pratings	NE	53, 54	L
25	0021140212 REDONE	T48S, R64E, Sec 27, 114C4	N	NA	NA	NA	None	NE	321	L
26	0021140213 BASKET BAY	T49S, R65E, Sec 16, 114C3	N	NA	NA	NA	MAPCO staked claims for uranium	NE	321	L
27	0021140051 KOBY	T47S, R58E, Sec 3, 114D6	OF	V: Au, Ag, Pb, Cu, Bi, Cd; hosted in gs sc	Adit: 300; C(s) along 300 ft of strike	None	3 ft to 6 ft widths contained 0.02 oz/t Au & 0.5-0.9 oz/t Ag (247); dump samples contained to 2.96 oz/t Au, 52.5 opt Ag, 1% Pb (177)	recon	177, 247, 262	L
28	0021140305 CABLE CLAIMS	T46S, R57E, Sec 26, 27, 35	CF	Dissem: Cu; Fault zone in metased rocks	NA	NA	Samples contained up to 2,200 ppm Cu and 4,800 ppm Zn across 5 ft (177)	recon	177	L
29	0021140065 MINE MOUNTAIN AREA	T46S, R57E, Sec 27, 114D7	CF	V: Au, Cu; hosted in di, gd	NA	NA	Samples contained up to 0.30 ppm Au, 2,100 ppm Cu (177)	recon	177, 262	L
30	0021140025 COBOL MINE	T46S, R57E, Sec 29, 114D7	CF	V: Au; gd and gs host w/aplite dike	Adit: 250, open stope for 70 ft; T	$3,500 Au (177)	Stoped area contained from nil to 2.45 oz/t Au across 0.2 ft to 1.2 ft (177)	recon	48, 177, 232	L-M
31	0021140028 CUB MOUNTAIN	T46S, R56E, Sec 13, 114D7	CF	V: Au	NA	NA	Samples contained up to 1 oz/t Au (262)	NE	262	L

Table B-1. Summary table for all mines, prospects and mineral occurrences.

Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
32	0021140085 STAG BAY GOLD (Bonnie Prospect, Brenda vein)	T45S, R56E, Sec 35, 114D7	CF	V: Au	Adit: 70	None	2 samples contained 0.05 oz/t and 0.36 oz/t Au across 1.1 ft and 0.5 ft, respectively (177), Brenda vein: nil Au	recon	177	L
33	0021140088 STAG BAY MAGNETITE	T46S, R56E, Sec 4, 114D8	CF	S: Fe, Cu; in fault near di-gb & marble	T (3): 1 sloughed	None	Samples contained from 9.6 to 51% Fe, to 0.93% TiO_2, & 100 ppm Cu (177)	recon	177, 262, 317	L
34	0021140087 STAG BAY COPPER	T46S, R56E, Sec 4, 114D8	CF	P: Cu, Fe, W; at contact between an & di	TP	None	Chip sample at upper workings contained nil Au, trace Ag, 0.03% to 0.76% Cu (4); lower workings contained 20-90% mag (317), Cu to 1.07% in trench 2 (177)	sampling, recon	4, 177, 262, 317	L
35	0021140105 STRANGER RIVER	T46S, R56E, Sec 29, 114D8	CF	PL: Au	NA	NA	Pan concentrate samples contained up to 0.00005 oz/yd^3 Au, trace Ag (177)	NE	177	L
36	0021140014 BERTHA BAY	T47S, R56E, Sec 9, 114D8	CF	Mag Seg: Cu	T; P	NA	None	recon	198	L
37	0021140119 SLIM & JIM	T47S, R55E, Sec 36, 114D8	CF	V: Cu; Fault zone in gw	NA	NA	Samples contained up to 1% Cu, 0.3%Zn, and 200 ppm Ni across 6.9' (177)	S	177	L
38	0021140304 LAKE MORRIS-MT. FRITZ OCCURRENCES	T46S, R56E, Sec 36,;T47, R56E, Sec 1	CF	Dissem sulf: Cu; hosted in Goondip Gs	NA	NA	Cu-bearing float in talus, stream float and ss samples; Mainly secondary Cu minerals on slip surfaces in Goondip Greenstone	none	177	L
39	0021140054 LAKE ELFENDAHL	T46S, R56E, Sec 36, 114D7	CF	V: Cu, Pb, Zn	NA	NA	None	recon	262	L

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
40	0021140009 BAKER PEAK	T47S, R57E, Sec 6, 114D7	OF	P: Cu, Au, Ag	Adit: 300; Shaft; T(s): several	NA	Cu values in GoonDip Gs along a 2 mile zone. Cu concentrated in shears, structures & dissem throughout gs. Assays to 7.52% Cu across 2' w/ Ag (177).	recon	109, 177, 198, 204, 308	L-M
41	0021140068 MIRROR HARBOR	T47S, R56E, Sec 22, 114D7	CF	Mag Seg: Ni, Cu, Co hosted in layered UM gabbro-norite 3 ore bodies	Shaft: (173), 2 levels; T (34)	Test shipment only	Resources (orebody): Measured 8,000 tons with 1.57% Ni & 0.88% Cu (175); Hypothetical (dissem deposit): 900,000 tons with 0.172%Ni, 0.049% Cu (320); 3rd deposit: few tons @ similar grade to shaft ore (177)	NE	177, 224, 268, 314, 320, 331	M
42	0021140057 LITTLE BAY	T47S, R56E, Sec 23, 114D7	CF	Mag Seg: Cu, Ni	T	NA	Southern extension of Mirror Harbor deposit	NE	220	L
43	0021140107 SNOW SLIDE	T47S, R57E, Sec 18, 114D7	CF	Dissem: Cu	Adit: 171	NA	None	recon	198	L
44	0021140203 COX BROTHERS	T47S, R57E, Sec 18, 114D7	CF	V: Au	Adit: 16; T (4); P (3)	NA	1928 dated Alaska Juneau reported up to 0.30 oz/t Au across 2.5 ft (321). Bureau reported up to 0.1 oz/t Au across 2.7 ft (304)	S-1979	304	L
45	0021140069 NEW CHICHAGOF MINING SYNDICATE	T47S, R57E, Sec 21, 114D7	CF	V: Au; hosted in ls	Adit (4): (750), (140), (20), (20); T (12)	NA	Samples from 110-ft-long by 4-ft-wide zone of qz ls brec averaged 0.24 oz/t Au (304)	R	304	M-H
46	0021140110 MARTHA-BROWN CUB	T47S, R57E, Sec 32, 114D7	CF	V: Au; hosted in gw	NA	NA	None	NE	304	L

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
47	0021140037 GOLDEN HAND APEX	T47S, R57E, Sec 22, 114D7	CF, active claims held	V: Au; hosted in gw	Adit: 225, w/ winze	4 oz Au	Qz vein exposed for 23 ft averaged 0.34 oz/t Au across 3 ft. Rep sample of 0.2-ft by 3-ft zone contained 186.74 oz ton gold (304)	R	304	M-H
48	0021140027 CONGRESS	T48S, R56E, Sec 2, 114C7	CF	VMS: Cu, Zn; hosted in gs	Adit: 25	NA	12-ft-wide zone of sil gs contained 0.58% Cu, 0.086% Zn (304)	NE	304	L
49	0021140109 SENATE	T48S, R56E, Sec 1, 114C7	CF	VMS: hosted in gs	NA	NA	None	NE	304	L
50	0021140300 TRIPLET ISLAND	T48S, R57E, Sec 14, 114C7	CF	VMS: Zn, Pb, Cu	NA	NA	Sample across 0.1 ft sl lens contained 35% Zn, 0.15% Pb, and 0.11% Cu (304)	NE	304	L
51	0021140113 CALCIUM CARBONATE TIME	T48S, R57E, Sec 4, 114C7	CF	NA	NA	NA	None	NE	304	L
52	0021140114 WINTHER	T48S, R57E, Sec 11, 114C7	CF	NA	NA	NA	None	NE	304	L
52	0021140115 DISCOVERY ON 1ST TEER	T48S, R57E, Sec 14, C 114C7	CF	NA	NA	NA	None	NE	304	L
52	0021140116 EAGLE GROUP	T48S, R57E, Sec 10, 114C7	CF	NA	NA	NA	None	NE	304	L
53	0021140063 MCKALLICK LODE	T48S, R58E, Sec 30, 114C7	CF	V: Au; hosted in gw	Adits (2): 50, 40	NA	2.3-ft-thick qz lens contained 0.24 oz/t Au (304)	NE	304	L

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
54	0021140003 HIRST CHICHAGOF	T48S, R57E, Sec 25, 114C7	P: MS 1502A /B, 2066, 1503	V: Au; hosted in gw	Adit w/ 4 levels: 6,950; shafts (2): to 1,800 ft below sea level	131,000 oz Au, 33,000 oz Ag from 140,000 tons ore	Inferred 80,000 tons @ 1.0 oz/t Au; Inferred 70,000 tons @ 0.25 oz/t Au; Inferred 70,000 tons tailings @ 0.14 oz/t Au (304)	NE	304	H
55	0021140013 BASOINIUER	T48S, R57E, Sec 26, 114C7	P: MS 1587	V: Au; hosted in gw	T	NA	Samples contained traces of Au, Ag (304)	NE	304	M
56	0021140024 CHICHAGOF PROSPERITY	T48S, R57E, Sec 23, 114C7	CF	V: Au; hosted in graywacke	Adits (2): 150 w/ 2 winzes, 45	NA	Samples across 0.15-ft to 2.8-ft thick vein contained from nil to 0.695 oz/t Au (304)	NE	304	M
57	0021140074 BAUER	T48S, R57E, Sec 23, 114C7	CF	V: Au; hosted in gw	Adits (2): 610, 25; T (s)	NA	No significant metal values in the lower adit. Alaska Juneau reports 0.01 oz/t Au to 0.92 oz/t Au in upper adit (304)	NE	304	L
58	0021140044 HANLON	T48S, R57E, Sec 34, 114C7	CF	V: Au; hosted in gw	C; T	NA	Samples contained up to 0.01 oz/t Au (304)	NE	304	L
59	0021140064 MCKALLICK PLACER	T49S, R58E, Sec 8, 114C7	CF	PL: Au	NA	NA	Alluvial placer deposit. A pan concentrate sample of stream gravels contained 0.11 oz/t Au (304)	NE	304	L
60	0021140011 BANEY	T49S, R58E, Sec 16, 114C7	CF	V: Au; hosted in gw	Shaft: (flooded); P(s); T(s)	NA	Qz vein from 0.25 ft to 3 ft wide exposed over 300 ft. Dump sample contained 2.76 oz/t Au and 0.32 % W (304)	NE	304	M

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
61	0021140006 AMERICAN GOLD COMPANY	T49S, R58E, Sec 4, 114C7	CF	V: Au; hosted in gw	Adit: 220, w/ winze; P	NA	Samples from narrow qz veins contained up to 0.18 oz/t Au. A select sample contained 2.42 oz/t Au (304)	NE	304	L
62	0021140049 JUMBO	T49S, R58E, Sec 4, 114C7	CF	V: Au; hosted in gw	Shafts (2): (flooded) w/ winze and 1,600 ft of drifts; Adit: 48	1,450 oz Au	18 samples taken along strike of vein contained up to 0.07 oz/t Au (243)	NE	304	M
63	0021140005 ALASKA CHICHAGOF	T49S, R58E, Sec 4, 114C7	CF; P: MS 957B	V: Au; hosted in gw	Adit: (580), 2 levels; Shaft w/ stopes	660 oz Au	Production grade of nearly 1 oz/t Au; samples contained 36 ppm Au, and 150 ppm Ag (304)	NE	304	M
64	0021140034 MCKALLICK CHICHAGOF MINES (OB ADIT)	T48S, R57E, Sec 36, 114C7	CF	V: Au; hosted in gw	Adit: 250 w/ winze; T(s)	NA	Strong persistent fault zone near the Chichagoff fault. Au values up to 0.09 oz/t on surface, 0.2 oz/t in the drift and 0.36 oz/t from the winze (304)		304	M
65	0021140023 CHICHAGOFF	T48S, R57E, Sec 36, 114C7	P: MS 1575, 864, 817, 936, 1460, 1047, 956B, 1461	V: Au; hosted in gw	Adit w/ 5 levels: 9,950; 6 shafts: to 2,750 ft below sea level	659, 955 oz Au, 200,000 oz Ag. Average grade about 1.09 oz/t Au.	Resources: inferred 80,000 tons @ 0.25 oz/t Au and 0.08 oz/t Ag; Inferred 463,000 tons @ 0.30oz/t Au. 456,000 measured tons of tailing @ 0.1105 oz Au per ton (304)	S	304	H

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
66	0021140029 HELEN-CHICHAGOF CREEK GROUP	T48S, R58E, Sec 31, 114C7	CF	V: Au; hosted in gw	Adits (4); 10 to 20 ft long	NA	Samples contained up to 0.2 oz/t Au (304)	NE	304	L
67	0021140302 POWERLINE PROSPECT	T48S, R58E, Sec 31, 114C7	P: MS 1498	V: Au; hosted in gw	Adit: 50; T	NA	Grab sample from sulfide bearing dike contained 0.52 oz/t Au (304)	NE	304	L
68	0021140043 HANDY	T48S, R58E, Sec 31, 114C7	P: MS 1459	V: Au; hosted in gw	Adit: 80	NA	Drilled between 1945 and 1953 but results not available. BuMines samples contained from nil to 0.12 oz/t Au (304)		304	L
69	0021140301 ANDY	T48S, R58E, Sec 31, 114C7	P: MS 1498	V: Au; hosted in gw	Adit: 57	NA	None	NE	304	L
70	0021140045 HILL & BERKLAND	T49S, R58E, Sec 3, 114C7	CF	V: Au; hosted in gw	Adit: 50	NA	None	NE	304	L
71	0021140053 LAKE ANNA	T49S, R58E, Sec 15, 114C7	CF	V: Au; hosted in gw	Adit : 80	NA	Narrow qz vein exposed in adit contained up to 0.005 oz/t Au (304)	NE	304	L
72	0021140058 WOLL	T49S, R58E, Sec 2, 114C7	CF	V: Au; hosted in gw	Adits (3); T(s)	NA	Best sample contained 0.51 oz/t Au. Other samples contained much less Au (304)	NE	304	L
73	0021140007 ANDERSON	T49S, R58E, Sec 12, 114C7	CF	V: Au; hosted in gw	Adit: 36; C	NA	On strike with Chichagoff fault. Values up to 1.5 ppm Au (304)	NE	304	L
74	0021140062 FLAT TOP MOUNTAIN SEA LEVEL OCCURRENCE 53	T49S, R59E, Sec 18, 114C6	CF	V: Au; hosted in gw	NA	NA	Sample of qz float contained 2 ppm gold (304)	NE	304	L

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
75	0021140125 FLAT TOP MOUNTAIN, UPPER WORKINGS	T49S, R59E, Sec 20, 114C6	CF	V: Au; hosted in gw	P	NA	Sample of qz float contained 2 ppm Ag, and 200 ppm As (304)	NE	304	L
76	0021140046 CHICHAGOFF STAR	T49S, R59E, Sec 6, 114C6	CF	V: Au; hosted in gw	NA	NA	None	NE	304	L
77	0021140128 FALLS	T49S, R59E, Sec 24, 25, 114C6	OF	Dissem: Cu; hosted in Kelp Bay Group	NA	NA	Samples contained from 10 to 300 ppm Cu and from nil to 0.5 ppm Ag in chl sc, hnfls, chert & gs (177)	NE	177	L
78	0021140306 PAT	T49S, R60E, Sec 28, 32	OF, CF	Dissem: Cu; hosted in contact between Goondip Gs and Whitestripe marble	NA	NA	Samples contained from 15 to 360 ppm Cu and 10 to 1,600 ppm Zn; highest values found in sc and gneiss w/ py & po	NE	177	L
79	0021140193 ELDORADO	T50S, R59E, Sec 3, 114C6	CF	PL: Au	NA	NA	17 pan concentrate and stream sediment samples contained from nil to 0.9 ppm gold (304)	NE	304	L
80	0021140033 FALCON ARM	T50S, R59E, Sec 10, 114C6	CF	V: Au; hosted in gw	Adit (4): 3,000, 15, 75, 35; P	NA	Sample from upper workings contained 2.16 oz/t Au. Mineralization located along a fault controlled gulch that extends at least 5,000 ft (304)	NE	304	M
81	0021140026 COBOL PROSPECT	T50S, R59E, Sec 36, 114B6	CF	V: Au; hosted in graywacke	Adits (2): 1,600, 550 w/ winze, stope	100 oz Au	Zone 57-ft long by 3-ft wide averaged 0.28 oz/t Au. Float sample above present workings contained 8.74 oz/t Au (304)	NE	304	M

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82	0021140129 RAM	T50S, R60E, Sec 4, 9, 114C6	CF	Dissem: Cu; hosted in gneiss-metavolcanic rocks	NA	NA	Samples contained from 55 to 190 ppm Cu (177)	NE	177, 321	L
83	0021140130 USHK	T50S, R60E, Sec 10, 15, 114C6	OF	Dissem: Cu; hosted in Goondip Gs and amphibolite	NA	NA	Samples contained from 5 to 290 ppm Cu, nil to 0.7ppm Ag, & 5 to 100 ppm Mo (177)	recon	177, 321	L
84	0021140221 ORANGE GULCH	T50S, R60E, Sec 36, 114B6	CF	NA	NA	NA	Orange-colored gulch along a fault contact between metasediment and metavolcanic rocks and gs contained up to 12 ppm Au, 7 ppm Ag, 3,400 ppm Zn, and 100 ppm Mo (304)	NE	304	L
85	0021140136 SLOCUM ARM	T51S, R60E, Sec 4, 114B6	CF	P: Mo; gs intruded by gd	NA	NA	Mo mineralization in a variety of rock types is scattered across an area gr eater than a square mile (304)	R	304	M
86	0021140199 NEXT	T51S, R60E, Sec 22, 114B6	CF	Dissem: Cu	NA	NA	malachite and dissem py/po in greenstone (188)	NE	188	L
87	0021140303 DEEP BAY	T51S, R61E, Sec 8, 114B5	OF	?	NA	NA	Stream sediment sample contained 12.0 ppm Au (177). No Au found in recent sampling	S	177	L
88	0021140075 RODMAN BAY	T52S, R63E, Sec 17, 114B5	P: MS 554, 555	V: Au	Adit: 780	NA	Hi-grade sample contained 45 ppb Au, nil Ag	M, S	333, 338	L

Table B-1. Summary table for all mines, prospects and mineral occurrences.

Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
89	0021140188 MIDDLE ARM	T52S, R65E, Sec 28, 114B3	OF	V	NA	NA	Samples contained up to 192 ppm Cu, 10 ppb Au, and 98 ppm Zn	S	188	L
90	0021140050 PORTAGE ARM	T52S, R65E, Sec 23, 114B3	OF	V: Cu	NA	NA	Covellite, chalcopyrite in qz veins (188); Bureau samples contained 1,810 ppm Cu, 2 ppm Ag, and 48 ppm Zn	S	188	L
91	0021140153 LOST ANCHOR	T52S, R66E, Sec 32, 114B3	OF	V: Cu	NA	NA	Samples contained up to 4,060 ppm Cu	S	NA	L
92	0021140189 THE BASIN	T53S, R66E, Sec 15, 114B3	OF	V: Cu	NA	NA	Samples contained up to 230 ppm Cu, 110 ppm Zn, and 0.5 ppm Ag	S	188	L
93	0021140190 SOUTH ARM	T53S, R65E, Sec 13, 114B4	OF	V: Cu	NA	NA	Samples contained up to 585 ppm Cu, 310 ppm Zn	S	188	L
94	0021140147 BLACK HAWK & SUSIE GROUPS	T52S, R61E, Sec 8, 114B5	OF	V: Au	NA	NA	Samples contained up to 0.45 oz/t Au (321)	NE	321	L
95	0021140076 SEALION COVE	T53S, R60E, Sec 11, 114B6	OF	P: Mo, Cu	NA	NA	Samples contained up to 2,450 ppb Au, 21 ppm Mo, 110 ppm Cu, & >1% As	S	188	L
96	0021140151 LITTLE BLONDE & HIGH GRADE GROUPS	T53S, R61E, Sec 15, 114B6	OF	V: Au, Pb, Zn; hosted in contact between gs & arg	Little Blonde: T (3): 30, 12, 10; High Grade: T: 100	NA	Little Blonde: up to 0.42 oz/t Au across 7" qz (253) High Grade: assays from float contained up to 3 oz/t Au, other samples contained nil Au (253)	recon	253, 255	L

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
97	0021140052 KRESTOF GROUP	T54S, R62E, Sec 3, 114A5	OF	V: Au; hosted in gw & slate	T (5)	NA	Sample across 0.5 ft contained 0.03 oz/t Au, nil Ag	S	252, 282, 283	L
98	0021140059 MAGOUN ISLAND	T54S, R62E, Sec 20, 114A5	OF	P: Mo, Cu	NA	NA	Samples contained up to 1% Cu, 1,245 ppm Mo, & 9.4 ppm Ag	S	286	L
99	0021140152 HALLECK ISLAND	T54S, R63E, Sec 18, 114A5	OF	V: Au; qz veinlets in gw and slate	Adit: 125; Shaft: (80)	NA	Samples contained from 5 to 295 ppb Au	M, S	251, 255	L
100	0021140198 SIGINAKA ISLAND	T54S, R63E, Sec 19, 114A5	OF	Dissem: Cu	NA	NA	Samples contained to 505 ppb Au & 332 ppm Cu	S	188	L
101	0021140001 INDIAN RIVER	T55S, R64E, Sec 18, 114A4	OF	Mag Seg: Cr, Fe	NA	NA	Magnetite and chromite in serpentinite (188)	recon	188	L
102	0021140159 PANDE BASIN	T55S, R65E, Sec 16, 114A4	P: MS 538	PL: Au	NA	NA	No evidence of gold bearing gravels (180)	NE	180	L
103	0021140154 WARM SPRINGS BAY	T55S, R67E, Sec 19, 114A3	OF	P: Cu, Mo, Zn	NA	NA	20 samples averaged 600 ppm Cu & 85 ppm molybdenum; Select sample contained up to 1,445 ppm Cu, 626 ppm Mo, and 1,030 ppm Zn	S	321	M
104	0021140021 CASCADE	T55S, R64E, Sec 29, 114A4	OF	V: Au	C(s)	NA	Staked prior to 1910; sulfides include po, aspy, rare cp	NE	180	L
105	0021140016 THETIS	T55S, R64E, Sec 28, 114A4	OF	V: Au, Ag, Pb	Adits (2): unknown length	NA Mill test only	Mill test lot contained approximatley 0.33 oz/t Au, 2 oz/t Ag (2)	recon	2, 9, 338	L

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
106	0021140018 BOSTON CLAIM	T56S, R64E, Sec 4, 114A4	S	V: Au	Adit: 118; T; P	NA	Staked prior to 1904; trace gold found in several samples (211)	recon	180, 211, 338	L
107	0021140042 HALEY & HANLON	T55S, R64E, Sec 34, 114A4	S	V: Ni, Cu, Co	Adit: 15	NA	Samples yielded 0.99% Cu, 0.2% Ni & 0.09 % Co (175)	recon	175	L
108	0021140160 GANGOLA	T56S, R64E, Sec 12, 114A4	S	V: W, Cu	T; P	NA	Samples contained up to 570 ppb Au, 1,010 ppm Cu, and 1,110 ppm W	S, M	NA	L
109	0021140060 BULLION	T56S, R64E, Sec 21, 114A4	OF	V: Au	NA	NA	Active around 1900	NE	180, 338	L
110	0021140162 APEX	T56S, R64E, Sec 14, 114A4	OF	V: Au	Adit: 8	NA	Qz vein in shear zone; zone up to 2 ft wide; values up to 40 ppb Au, 920 ppm Cu	M, S	9	L
111	0021140055 LIBERTY	T56S, R64E, Sec 24, 114A4	OF	V:Au	Adits (2): 35, 310	NA	Discontinuous qz vein, up to 4 ft thick; situated in fault parallel to country rock fol; highest Au value only 60 ppb	M, S	9, 180	L
112	0021160026 BARANOF QUEEN	T56S, R65E, Sec 19, C 116D4	S	V: Au	NA	NA	Staked prior to 1912	NE	180	L
113	0021160027 HENRIETTA	T56S, R65E, Sec 19, 116D4	S	V: Au	NA	NA	Staked prior to 1912	NE	180	L
114	0021160023 SILVER BAY	T56S, R65E, Sec 19 116D4	S	V: Au, Cu	NA	NA	Active prior to 1900; reported low grade gold and silver (339); up to 8-ft-wide vein (9)	NE	9, 180	L

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
115	0021160061 EDGECUMBE EXPLORATION	T56S, R64E, Sec 25, 116D4	OF	V: Au	Adit: 120 w/ winze, raise	unknown quantity milled	Samples contained up to 1,810 ppb Au, 0.6 ppm Ag, and 212 ppm Zn	M, S	259	L-M
116	0021160009 EUREKA	T56S, R65E, Sec 30, 116D4	OF	V: Au	Adits (3): 85, 2 caved	NA	Claim active prior to 1898; select sample contained 27.5 ppm Au, 3.2 ppm Ag, 4,060 ppm As	M, S	2, 180	L
117	0021160024 GOLD REEF	T56S, R65E, Sec 30, 116D4	OF	V: Au	NA	NA	Active around 1912	NE	180	L
118	0021160030 GREEN LAKE	T56S, R65E, Sec 29, 116D4	S	V: Au	Adits (3): 389, ?, 1 caved; T, P	NA	Up to 6 ft vein in outcrop; 0.02 oz/t Au in sample across 4' (250)	NE	211, 250	L
119	0021160016 LOWER LEDGE	T56S, R65E, Sec 32, 116D4	OF	V: Au	Adit: 63; Shaft: (flooded); C(s)	NA	Qz stringers in shear exposed in adit; very low precious metal values; up to 2,350 ppb Au in local float sample; may be same as "Haley and Rogers" prospect	M, S	9, 180, 338	L
120	0021160007 STEWART	T56S, R65E, Sec 32, 116D4	P: (MS567), OF	V: Au, Ag	Adits (3): 180 (w/ 29 ft winze), 93, 33	NA	Qz vein exposed over 200 ft horiz & 120 ft vert; up to 16 ft wide; avg. 5-to 6-ft-wide vein; values up to 3,130 ppb Au, w/ minor Ag	M, S	9, 180, 338	L
121	0021160005 BAUER	T56S, R65E, Sec 32, 116D4	OF	V: Au	Adit: 1,070	NA	Very minor mineralization; gold values to 280 ppb	M, S	180, 338	L
122	0021160029 WICKED FALL	T56S, R65E, Sec 33, 116D4	OF	V: Au	Adits (2)?	NA	Active around 1912; claim marked on company prospect map of 1940's showing 2 adits	NE	180	L

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	MDP
123	0021160010 FREE GOLD	T57S, R66E, Sec 5, 116D4	OF	V: Au	1 Adit?	NA	Active prior to 1904; 1940's company map shows one adit on prospect; samples from area reveal low precious metal values	Recon	180	L
124	0021160017 LUCKY CHANCE	T57S, R66E, Sec 5, 116D4	OF	V: Au, Ag	Adits (2): 513 total length, caved; T; P; glory hole	1,200 tons mined; unknown quantity of Au	Visible Au present on dump; samples contained from 0.17 oz/t Au to 1.72 oz/t Au (257)	M, S	180, 257	L
125	0021160002 HILL	T57S, R66E, Sec 13, 116D3	OF, CF	Mag Seg: Cr	NA	NA	Grab sample contained 6,080 ppm Cr	S	321	L
126	0021160001 RED BLUFF BAY	T58S, R68E, Sec 9, 116D3	OF	Mag Seg: Cr	T; P	NA	Resource: 29,500 mt @ 12% Cr_2O_3 (321); diamond drilled	Recon, S	110, 174	L-M
127	0021160011 GODDARD HOT SPRINGS	T58S, R64E, Sec 17, 116D5	S	Mag Seg: U-Th	NA	NA	Allanite to 7% in heavy mineral concentrates	S	221, 237 327	L
128	0021160062 PATTERSON BAY	T61S, R69E, 116C2, C3	CF	P: Cu	NA	NA	Rubble crop samples contained up to 970 ppb Au, 3,100 ppm Cu, and 4,820 ppm As	S	None	M
129	0021160025 SNIPE BAY	T63S, R67E, Sec 9, 116B3,B4	OF	Mag Seg: Cu, Ni	T; P	NA	Resource: 94,000 ton grading 0.94% Cu, 0.33 % Ni (321); prospect has been diamond drilled	Recon, S	48, 97, 234, 321	M
130	0021160021 REDFISH BAY	T64S, R67E, Sec 1, 116B3,B4	CF	Peg: REE hosted in Tertiary intrusive	NA	NA	REE reported in 1952 (267); largest dike 30-40 ft thick; no commercially valuabel minerals (19)	S	19, 267	L

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Map No.	MAS No. Name	Location	Land status	Deposit type	Work-ings	Production	Significant results	Bureau work	Select references	M D P
131	0021160019 PORT LUCY	T64S, R69E, Sec 4, 116B2	OF	V: Cu	NA	NA	Samples contained up to 197 ppm Cu	S	333	L
132	0021160018 PORT CONCLUSION	T65S, R70E, Sec 6, 116B2	S	V: Cu	NA	NA	Samples contained up to 0.5 ppm Ag, 230 ppm Cu, and 110 ppm Zn	S	339	L

83 Ushk
84 Orange Gulch
85 Slocum Arm
Next
Deep Bay
Rodman Bay
Middle Arm
...ortage Arm
...t Anchor
...Basin
...Arm
...k & Susie Groups
... & High Grade Groups

P A C

Figure 4 - Sample location map.

Figure 5. - Mines, prospects, and occurrences in the Baranof and Chichagof Islands study area.